REPORT OF THE EXPERT COMMITTE ON THEPREVENTION OF SLAUGHTER OF CATTLE IN INDIA

1955

सत्यमेव जयते

of the cattle and dairy industries in India, which will incr milk production and improve the productivity of cattle, paragraphs Nos. 95 and 96.

It has been found that the root cause of slaughter of milch cattle is the unnatural conditions under which animals are kept for milk production in urban areas. The sale of dry animals for slaughter becomes under these conditions, an economic necessity. The only way in which the present abuse can be permanently prevented is to follow the method found most suitable by other countries namely the removal of cattle from the cities and the arrangements of milk supplies from rural areas. By doing this, not only will the slaughter of prime milch cattle and all the accompanying evils be stopped for ever but there will be large development of cattle and dairy industries of the country. That alone, in the opinion of the Committee, will lead to lasting benefits.

One notable feature in the cattle and dairy industries is that unlike in many other industries the benefits of the development of this industry will be distributed over a large number of people who keep only one or two animals per head in small fragmented holdings. These owners will be assured of a steady income, which would improve their standard of living.

Yours faithfully,

P. N. NANDA.

सत्यमेव जयते

PREFACE

As is well known, the demand for prohibition of slaughter of cattle in India has been considerably intensified since the partition of the country. Several Bills aiming to prohibit the slaughter of cattle by law have been introduced in Parliament. Mention might be made in this connection of the Bills by Shri Nand Lal Sharma, Shri U.N. Trivedi, Shri Jhulan Sinha and the most recent one by Seth Govind Das.

On the 21st May, 1954, the Minister for Food and Agriculture made a statement in Parliament explaining the policy of the Government of India *vis-a-vis* cow slaughter. In this statement, he announced the Government's decision to set up a Committee of Experts to suggest measures which should be taken:—

1. To prevent the killing of milch cows, particularly in the cities of Calcutta and Bombay even when they had gone temporarily dry;
2. to make the present law under the subject more effective so as to put an end to such evil practices as 'phooka';
3. to explore the possibility of making milk powder in suitable centres; and
4. to impose some effective control on the inter-state movement of cattle.

Accordingly, the Government of India in the Ministry of Food and Agriculture, by their Resolution No. F. 24-1/54-L.S., dated June 10, 1954, appointed the following as members of the Expert Committee with the aforesaid terms of reference:—

(1) Shri P. N. Nanda, Animal Husbandry Commissioner with the Government of India—(*Chairman*).

(2) Dr. K. C. Sen, Director of Indian Dairy Research Institute, Bangalore.

(3) Shri D. N. Khurody, Milk Commissioner, Bombay.

(4) Shri L. C. Sikka, Milk Commissioner, Calcutta.

(5) Shri B. N. Handa, Director of Veterinary Services, Punjab.

(6) Shri V. R. Rajagopalan, Director of Animal Husbandry, Madras.

(7) Shri K. P. R. Kartha, Deputy Livestock Adviser, Indian Council of Agricultural Research—(*Secretary*).

(8) Shri Harbans Singh, Assistant Cattle Utilisation Adviser, Ministry of Food and Agriculture—(*Joint Secretary*)

Subsequently, *vide* Government of India, Ministry of Food and Agriculture Notification No. F. 24-1/54-L.S., dated the 17th September, 1954, Sardar Santokh Singh was included in the Committee. The Committee was directed to submit its report within six months of its appointment.

All the members, except Sardar Santokh Singh, first assembled on the 9th and 10th July, 1954, to chalk out a plan and procedure for the work. They came to the conclusion that as it was not possible to gather the essential data relating to their terms of reference by visiting each and every large town, they would visit the three largest cities—Bombay, Calcutta and Madras, and a few others and in addition collect the requisite data by circulating a questionnaire.

A questionnaire (Appendix I) along with a prefatory note, which indicated the up-to-date action taken by the Government in regard to the prevention of slaughter and explained the context in which the Committee was appointed, was circulated to the State Governments and to the municipal authorities of Calcutta, Bombay, Madras and other large cities. Simultaneously, a press note (Appendix II) was issued inviting those from the general public, who had experience and knowledge of this subject, to furnish the Committee with such data, information and suggestions as they were able to provide.

In August, the Committee met again in Delhi and visited some areas in PEPSU, which supply milch cattle to Bombay, Calcutta and some other large towns.

In the following month they visited Bombay and examined the conditions obtaining there in regard to the slaughter of cattle and the production and distribution of milk. They examined important persons concerned with the problems, saw the arrangements regarding slaughter of cattle at the Bandra Slaughter House, and production and distribution of milk in the city stables and at the Aarey Milk Colony, and studied the Bombay Milk Plan.

The Committee next visited Anand and studied the working of the Kaira District Co-operative Milk Producers Union Ltd. The Union supplies to the Government of Bombay some 1,000 maunds of pasteurised milk daily.

This was followed by a visit to Ahmedabad, where the problems were similarl studied.

The Committee met again towards the close of September in Calcutta, in November in Bangalore and in December in Madras to study, at first hand, the problems obtaining at each of these cities. The work was rounded off by a visit to Rohtak and adjacent areas in the Punjab, which supply large numbers of milch cattle, both cows and buffaloes, to most of the larger Indian cities, but particularly to the cities of Bombay and Calcutta. The places visited and the persons interviewed are given in Appendices III(*a*) and III(*b*).

As will be seen, the Committee met, both Government and Municipal Officers, who are concerned with the administration of the regulations relating to slaughter of cattle and sale of milk at the places visited by them. The Committee also met representatives of milk vendors in cities, butchers, beef and hide marketing interests, consumers of milk and beef and breeders and dealers of milch animals. They also interviewed a number of non-officials interested in the welfare of cattle and prevention of slaughter.

All of them gave valuable assistance to the Committee in their task even though they could not furnish all the authentic statistical data which the Committee required. The Committee had, therefore, to draw upon the experience and knowledge of its members, most of whom have been in close touch with the problems of slaughter and milk supply for many years.

The Committee wish to place on record their debt of gratitude to all the officials and non-officials who helped them either by the supply of data or by oral evidence. The Committee is also obliged to the State Governments for providing all the facilities for the study of the problem on the spot.

The terms of reference of the Committee comprise of four items. The report which follows, deals with each of these separately. Chapter I introduces the problem. Chapter II is historical, as it records the efforts made to solve the problem of cattle slaughter in the past. Chapters III to V deal separately, with

the problem as it exists in the cities of Bombay, Calcutta and Madras, respectively. Chapter VI very briefly does the same in respect of some other large towns. In Chapter VII the problem is discussed as a whole and recommendations are made. Chapters VIII, IX and X deal with items II, III and IV of the terms of reference.

As the problem of banning the slaughter of *all* cattle is of very great importance and topical interest, the Committee have briefly discussed it in Chapter XI, though, strictly speaking, it was not specifically included in their terms of reference. All recommendations have been summarized in Chapter XII.

सत्यमेव जयते

CONTENTS

		Page
Preface		v—viii

CHAPTER I—SLAUGHTER OF MILCH ANIMALS IN CITIES

Para		
1	Origin of the problem—Growth of cities	1
2	Number slaughtered	1
3	Quality, not number matters	2
4	Causes of slaughter—	
	(*a*) Want of space	2
	(*b*) Long dry period	2
	(*c*) Absence of salvage facilities	2
	(*d*) Mastitis	3

CHAPTER II—PAST EFFORTS TO CONTROL SLAUGHTER—HISTORICAL RETROSPECT

5	I.C.A.R. Committee on salvage of city milch cattle	4
6	War-time restrictions on slaughter	4
7	Cattle Preservation and Development Committee	5
8	Railway concession	5
9	Salvage farms	5
10	Banning of beef export	5

CHAPTER III—POSITION IN GREATER BOMBAY

11	Human population	6
12	Cattle population	6
13	Present supplies of milk	6
14	Movement of milch animals	6
15	Number of buffaloes slaughtered	7
16	Conditions of milk production—	
	(*a*) Lack of space	8
	(*b*) Disease control and feeding	8
	(*c*) Breeding	8
	(*d*) Owners are not breeders	8
	(*e*) Destruction of calves	8
	(*f*) Long dry period	9
	(*g*) Slaughter, result of these conditions	9
17	Conditions of milk distribution	9
18	Regulations for control of slaughter	9
19	Quota fixed for slaughter	10
20	Quality of animals slaughtered	10
21	Prices of slaughter cattle	10
22	Enforcement of regulations difficulties	10
23	Cruel practices	11
24	Demand for beef	11
25	Price of beef	12
26	Meat marketing regulations	12

PAGE

27 Salvage of cattle progress 12
28 Salvage from Aarey Colony 13
29 Summary of results of salvage 14
30 Bombay Milk Plan—
(a) Objectives 14
(b) Removal of stables and facilities in Aarey 15
31 Income-tax law discourages salvage 15
32 Calf rearing scheme 16
33 Bringing in of long distance milk 16
34 Distribution of processed and bottled milk 16
35 Purchase and sale price 17
36 Toned milk 17
37 Financial aspect of the Bombay Milk Plan 17
38 Advantages obtained from Milk Plan 17
39 Future development 18

CHAPTER IV—THE PROBLEM IN CALCUTTA CITY

40 Consumption of milk in the city 19
41 Cattle population 19
42 Conditions under which milk is produced 20
43 Number of milch animals imported into Calcutta 20
44 Number of milch animals exported from Calcutta 20
45 Wastage of milch animals in Calcutta 21
46 Wastage of calves in Calcutta 21
47 Conditions for up-keep of milch animals in Calcutta—
(a) Congestion 21
(b) Phooka 22
(c) Cows not bred 22
48 Loss of high quality cows and buffaloes 22
49 Regulations against slaughter of milch animals in Calcutta . . . 22
50 Working of Animal Slaughter Control Act 23
51 Solution of the problem 23
52 Improving the quality of local cattle by proper breeding, feeding, management and disease control 24
53 Collection of milk from rural areas and its sale in the city after pasteurisation 24
54 Distribution arrangements 25
55 Need for milk colony 25
56 Legislation to abolish city stables and establish a milk colony . . 26

CHAPTER V—POSITION IN MADRAS CITY

57 Growth of human population 27
58 Cattle population 27
59 Breeds of cattle kept 28
60 Cattle markets 28
61 Imports and exports of cattle 28
62 Number slaughtered 29
63 Slavage of dry cows—
(a) Methods of salvage 29
(b) Government Salvage Farm 29
(c) Salvage by Milk Union 30

PAGE

64 Rearing of calves 30
65 Subsidy for calf rearing 30
66 Working of slaughter houses 30
67 Statistics of animals slaughtered in the city 31
68 Number and type of cattle rejected for slaughter 32
69 Price of beef cattle 32
70 City milk supply 32
71 Madras Co-operative Milk Supply Union 33
72 Milk Plan for Madras 34

CHAPTER VI—PROBLEM IN OTHER CITIES

73 General 35
74 Number of cattle involved 35
75 Other cities visited by the Committee 35
76 Conditions in Delhi—
(a) Human population 35
(b) Population of milch cattle 36
(c) Special features 36
(d) Control of slaughter 36
(e) I.C.A.R. Milk Scheme 37
(f) Delhi Milk Plan 37
77 Conditions in Ahmedabad 38
78 Conditions in Bangalore 39

CHAPTER VII—CONSIDERATION OF ITEM I IN TERMS OF REFERENCE

79 Slaughter of milch animals 40
80 Destruction of calves 40
81 Breeding areas depleted of basic stock 40
82 Root cause 40
83 Example of other countries 41
84 Remedy 41
85 Development of village production and its marketing 41
86 Economic disposal of surplus 42
87 Positive aspect 42
88 Milk colonies 42
89 Salvage and calf rearing farms 42
90 Machinery for implementing Milk Plan 43
91 First stage of Plan 43
92 Quality control 43
93 Machinery in Central Government 43
94 Interim measures 43
95 Wider implications of recommendations 45
96 National problem 46
97 Nature of assistance required 46

CHAPTER VIII—CONSIDERATION OF ITEM II IN TERMS OF REFERENCE

98 Phooka 47
99 Doom Dev 47
100 Legislation on Phooka and Doom Dev 47

PAGE

101 Enforcement of legislation 48
102 Need of Public Co-operation 49
103 Enhancement of reward 49
104 Other cruelties 49

HAPTER IX—CONSIDERATION OF ITEM III IN TERMS OF REFERENCE

105, 106 Prefatory 50
107 High cost of Milk Powder 50
108 Difficulties of manufacture 51
109 Imports of milk powder 51
110 Quality of village milk 51
111 Milk powder cannot replace fluid milk supplies 52
112 Scope for developing milk drying industry 52
113 Supply of sterilised milk 52
114 Surveys to be carried out 52
115 Recommendations 53

CHAPTER X—CONSIDERATION OF ITEM IV IN TERMS OF REFERENCE

116 General—Movement of cattle 54
117 Movement of milch animals 54
118 Conditions in the Hariana tract 55
119 Depletion of Hariana tract 56
120 Ban on export undesirable 56
121 Interim measures to arrest depletion—
(a) Registration 56
(b) Retention of younger animals 57
(c) Salvage 57
(d) Market for fluid milk 57
122 Hardships of transport 57

CHAPTER XI—GENERAL PROBLEM OF CATTLE SLAUGHTER IN INDIA

123 Introduction 58
124 Cattle population 58
125 Importance of cattle to India 59
126 Present value of Indian cattle industry 59
127 Shortage of fodder 59
128 Other shortages 60
129 Trend of cattle population 60
130 Effect of further increase in population 61
131 Menace of wild cattle 62
132 Gosadans 62
133 Gosadans, no solution 62
134 Total ban on slaughter undesirable 63
135 Need for statistical organization 63
136 Need for wholetime Member on Planning Commission 63

CHAPTER XII—SUMMARY OF RECOMMENDATIONS

Preamble 64
Recommendations 1—26 65

APPENDICES

		PAGE
I	Questionnaire	71
II	Press Note	75
III (*a*)	List of persons interviewed	77
(*b*)	List of places visited	80
IV	Summary of legislation in regard to the prevention of slaughter in different States	81
V	Table showing the number of recognised and unrecognised slaughter houses in India (1948-49)	83
VI	Number of cattle slaughtered inside and outside slaughter houses in India (1949)	84

सत्यमेव जयते

सत्यमेव जयते

CHAPTER I C

SLAUGHTER OF MILCH ANIMALS IN CITIES

ORIGIN OF THE PROBLEM— GROWTH OF CITIES

1. The problem of slaughter of milch animals in Indian cities is really the outcome of the growth of these cities. Though India is predominantly an agricultural country, and her urban population forms only 17·3 per cent. (1951 census) of the total, the actual number living in towns is large, being nearly 70 million. The urban population has consistently increased during the last three decades. The percentage of total urban population was only 11·5 in 1931, it rose to 12·8 in 1941 and jumped to 17·3 in 1951. The movement of rural population to urban areas is a world phenomenon and its causes are well known. In India, however, there has been an additional cause, namely, the partition of the country. The population of Calcutta, Bombay and Madras, in particular, has shown phenomenal increase, as the following figures would show:—

	Calcutta	Bombay	Madras
1931	15,64,161	11,61,303	6,47,230
1941	27,93,879	14,89,883	7,77,481
1951	34,44,646	23,39,270	14,16,956

When the population of cities was small, the problem of milk supply did not present much difficulty. The total requirement of milk was met from milch animals kept in the cities and their immediate vicinity. This did not create any serious problems of sanitation or public health. In the first place, the cities were not congested and secondly, the number of milch animals maintained within the cities was small. But the position deteriorated with the growth of the cities and the increase in population. Outskirts merged into the original municipal boundaries, which brought into the city precincts stables which were previously outside their boundaries; congestion increased; and with the increase in population, the requirements for milk and, therefore, the number of milch animals to be housed to meet these requirements increased. Due to poor communications and want of proper organization, rural areas were not adequately tapped to meet the increased requirements of milk. This resulted in more stables and more animals in the same stables, leading to further congestion and deterioration of sanitary conditions. In large cities, particularly, the problem of accommodation became so acute that no freshly calved animal could be brought in without getting rid of the one which had gone dry. Salvage facilities were either not available or, if available, were uneconomic. There was, therefore, no alternative but to send these dry animals for slaughter irrespective of their age and productivity.

NUMBER SLAUGHTERED

2. The number of useful animals thus slaughtered in the whole of India cannot be ascertained with any degree of accuracy. This is mainly because, as will be shown later in this report, such slaughter often takes place outside the registered slaughter houses. Data relating to the cities of Bombay, Calcutta and Madras would be found in Chapters III, IV and V. From these

figures it may be reasonably inferred that at least 50,000 high yielding cows and she-buffaloes from these cities alone are annually sent for premature slaughter and are lost to the country. In smaller towns, where congestion is less, the conditions are not so bad and the same proportion of animals is not slaughtered. Even then the total loss to the country should be very appreciable.

Quality, not number matters

3. According to the latest cattle census, the urban cattle constitute about 5 per cent. of the total number of cattle in India. There being 70 million cows and she-buffaloes over three years of age in the whole country, the actual number of milch animals kept in the urban areas is, thus, approximately 3·5 million. But as animals are also kept in the adjoining suburbun areas to supply milk to the towns, the number that is mishandled cannot be less than four millions. A fraction of these goes to the slaughter house every year. But it is not the number or their proportion in the total population that matters but their quality. The proportion of the number slaughtered to the total milch cattle population is quite small. But barring a small number of cross-bred cows kept in cities like Madras, Bangalore, Coimbatore, Ootacamund, Patna, Shillong and Darjeeling, which are bred in or around the cities, these milch animals and their progeny are the best milking (and breeding) stock the country possesses. These animals and their progeny constitute the most valuable breeding material and the essential basic stock needed for improving the country's cattle wealth. Their premature loss robs the country of this material and, therefore, constitutes a serious impediment to further development. Judged by this fact, their loss is out of all proportion to the number involved. It is a loss which leads to the drying up of the fountain at its source and if this is allowed to continue, the problem of developing the cattle wealth of the country would be an impossible task.

Causes of Slaughter

4. It would be useful to enumerate the more important causes which lead to premature slaughter of useful milch animals, because a permanent solution to the problem can be found only by removing the root causes.

(*a*) *Want of space.*—Paucity of stable accommodation in the cities is perhaps the most important reason why cows and buffaloes when they go dry, are sold for slaughter. Without taking recourse to this practice, the city milkman faces the danger of going out of business. He, therefore, adopts the short cut but very wasteful method of disposing of the dry animal to make room for a newly calved one to keep up his trade.

(*b*) *Long dry period.*—Because a cow or buffalo which is not in calf, milks longer and yields more milk, it is in the interest of a milkman, who has to dispose of the dry animal to keep her unserved. Milch animals, are, therefore, purposely prevented from being served. Morever, the un-natural conditions under which they are maintained in the cities, such as lack of exercise, overfeeding with concentrates to keep up milk yield in the absence of green fodder, tend to make the animals too fat and, therefore, sterile. The result is that dry periods become too long, which make the keeping of dry cows till they refreshen very expensive and uneconomical.

(*c*) *Absence of salvage facilities.*—There is also lack of adequate and suitable arrangements for the salvage of dry cows. This is particularly so in Calcutta as West Bengal has no cattle breeding tracts.

(*d*) *Mastitis.*—Further, a milch animal, kept for urban milk supply, is really worth her udder to her owner. Many animals, because of the insanitary conditions under which they are kept in the congested city stables, develop mastitis, which makes them un-economical producers of milk and, therefore, useless to their owners, whose primary interest is to secure maximum production.

Paucity of accommodation, keen desire of the milkman to keep a cow in milk as long as possible, unnatural and insanitary conditions of housing, and lack of salvage facilities for dry animals are thus the main causes which are responsible for the disposal of cows and buffaloes when they go dry. Slaughter being the easiest outlet for them, they must go that way openly if condemned to be useless, but surreptitiously if the requisite certificate of uselessness is not obtainable. It is really the existing unsatisfactory system of milk supply of our cities which is the root cause of the colossal national waste.

सत्यमेव जयते

CHAPTER II

PAST EFFORTS TO CONTROL SLAUGHTER—HISTORICAL RETROSPECT

The foregoing makes it abundantly clear that the problem of premature slaughter of useful cattle in Indian cities is not new. It was only natural, therefore, that it should have received attention in the past. The efforts made in this direction are reviewed below :—

INDIAN COUNCIL OF AGRICULTURAL RESEARCH COMMITTEE ON SALVAGE OF CITY MILCH CATTLE

5. The question of premature slaughter of milch animals in cities has received specific attention and emphasis ever since the establishment of the Indian Council of Agricultural Research, a quarter of a century ago. The conditions in the city milk trade and the resultant slaughter of prime milch animals were repeatedly brought to the notice of the Council. The subject was accordingly discussed at various meetings, and as a result, an itinerating Committee on the salvage of city milch cattle was appointed by the Council in 1940 to investigate the problem on the spot in the cities of Calcutta, Bombay and Madras and to make suitable recommendations.

The work of this Committee was considerably handicapped first by the war and later by the partition of India. After protracted efforts, the Committee completed the survey in Madras and Bombay and submitted their reports in respect of these cities to the Government. The Committee could not, however, visit Calcutta and therefore, the task assigned to it remained incomplete.

WAR-TIME RESTRICTIONS ON SLAUGHTER

6. An acute shortage of milch cows and working bullocks was experienced during the war period. The general view was that the Allied Armed Forces stationed in India were consuming a large number of cattle of all categories. There was also increased demand for milk from the same source. Because of the increase in the cultivated area, there was a larger demand for working bullocks also. The position was deteriorating rapidly. To arrest such deterioration, it was considered necessary to take steps to conserve the available useful stock. In consultation with the Military authorities, therefore, a ban on the slaughter of the following categories of cattle was imposed under the Defence of India Rules by all the provinces, except Punjab :—

(*i*) Cattle below three years of age.

(*ii*) Male cattle between 3 to 10 years of age which are used or are likely to be used as work cattle.

(*iii*) Cows between 3 and 10 years of age which are capable of producing milk other than cows which are unsuitable for bearing offspring

(*iv*) All cows which are pregnant or are in milk.

These restrictions were made applicable in case of all slaughter civilian as well as military.

On the expiry of the powers under the Defence of India Rules on 30th September 1946, the Government of India again asked the State Governments to consider the feasibility of introducing legislation for continuing the restrictions imposed during the war.

Cattle Preservation and Development Committee

7. Soon after Independence and partition of the country, there was a persistent demand to ban slaughter of cattle. Therefore, in 1948, the Government of India appointed a Cattle Preservation and Development Committee to examine the problem. The Committee duly submitted their report to the Government.

One of the recommendations of this Committee was that steps should be taken to prohibit the slaughter of all useful cattle. The Government of India, in consultation with the State Governments, accepted this recommendation. But as enactment of necessary legislation came within the purview of the State Governments, the Government of India drafted a Model Bill and suggested to the State Governments to enact legislation on the lines of that Bill. The response varied from State to State. Some passed legislation on the lines of the Model Bill; some considered such legislation unnecessary; while still others enacted legislation imposing a total ban on the slaughter of *all* cattle. The action taken by each State is shown in Appendix IV.

Railway Concession

8. It has been stated already that the conditions prevailing in the cities make the keeping of dry animals therein very difficult. To encourage the salvage of dry cows, buffaloes and youngstock from the cities, therefore, the Railways granted a concession in railway freight to the extent of 50 per cent. of the normal freight, in case of such animals despatched from Bombay, Calcutta and Madras to the rural areas. This concession appears to have been well utilised making possible the salvage of thousands of milch animals and their progeny which, without it, would have been slaughtered or allowed to die.

Salvage Farms

9. Another step taken by State Governments to encourage the salvage of dry cows was to set up salvage farms, where dry cows and buffaloes were accepted as boarders at subsidised rates. For instance, Bombay established a farm at Palaghar with a capacity to salvage 2,000 animals annually; Madras similarly established a farm for about 200 animals; while Calcutta has planned a farm to house 12,000 animals.

Banning of Beef Export

10. Lately, India had developed an export trade in beef. As such export was not in consonance with the general public sentiment, it has since been banned except that a small quantity required as shipstore is permitted.

Chapter III

POSITION IN GREATER BOMBAY

Human Population

11. Bombay is one of the many cities, in India, which are growing at a rapid rate. The growth of industries, the conditions caused by the World War II and the influx of displaced persons following partition have tended to accelerate the growth of urban population. In 1931, there were only 11 lakhs of people in Bombay City, with a few in the suburbs. This rose to 14 lakhs in 1941. In 1950, the suburbs were merged into Greater Bombay and in 1951, the population was stated to be 28 lakhs. The rationing card figures, however, showed the population to be about 30 lakhs in 1953.

Cattle Population

12. Exact recorded number of cattle is not available but it is estimated that in the Greater Bombay area there were at the end of 1954, about 60,000 milch buffaloes and about 2,500 cows as under:—

	Milch Cattle
Bombay City proper	4,000
Greater Bombay Area	45,500*
Aarey Milk Colony (outside the greater Bombay area)	13,000
Total	62,500

Present supplies of milk

13. According to the latest estimates, the total quantity of milk produced per day in the area itself has been estimated to be about 6,60,000 pounds. In addition to this, about 25,000 pounds of milk are brought by the trade into Bombay City by the Central and Western Railways from adjoining areas, while about 1,00,000 pounds are obtained by rail by the Bombay Government from the rural areas in Kaira District. There is no road transport of milk into Bombay. The total supply is thus about 7,85,000 pounds per day which works out to a consumption of about 3·6 oz. of milk *per capita* per day. In summer, the supply is reduced by about a third.

Movement of Milch Animals

14. Greater Bombay is a compact island area with poor road communication with the main land. Unlike many other cities, there is only one road leading into Bombay. For several miles around, the area has heavy rainfall and grows only paddy. There are no villages from where rural produced milk could be obtained. The milch cattle have, therefore, to be maintained on the island.

*Includes about 2,500 cows. Cows constitute only 4 per cent. of the population and they supply only about 1 per cent. of the total quantity of milk consumed in the urban area of Bombay.

In order to maintain a steady outturn of milk, the buffalo owners must replace about 12 per cent. of the milking herd with freshly calved animals every month. They have to be obtained from distant breeding areas, like Punjab, Delhi and Gujerat. Newly purchased animals or salvage returned animals, as well as those that go out for salvage, all use rail transport. The total cattle population remains fairly steady. Between 1948 and 1952, the annual imports of milch animals into the city, according to the Municipal figures, varied from 20,000 to 26,000 as under :—

	Number of milch animals imported
1948	20,451
1949	24,326
1950	26,182
1951	24,993
1952	24,450

The recent figures as obtained from the Western Railway (there is hardly any traffic on the Central Railway) are as under :—

Year	Imported into Bombay	Exported from Bombay	Difference
1951-52	61,310	23,400	37,910
1952-53	67,197	29,789	37,408

The above figures pertain to milch and dry animals only. Animals for slaughter are always brought in by road. It will be seen that there is a certain amount of inconsistency in the above sets of figures. It is due to the fact that prior to October, 1950, Bombay City was a separate Municipal Unit, after which certain suburbs were merged into the Greater Bombay Municipal Corporation.

The animals exported for "salvage", are usually those which are young and/or are in calf. The figures of import represent new animals from the breeding areas of Gujerat and Punjab, as well as salvage returned animals. The difference of about 37,000 per annum, covers deaths, export by road and slaughter (authorised and unauthorised). Deaths are reckoned to be about 10 per cent. (of the total import of 67,000) which accounts for about 6,700 animals, leaving a balance of about 30,300.

Number of Buffaloes slaughtered

15. In Bombay slaughter houses, hardly any cows are slaughtered and certain restrictions have been imposed on the slaughter of buffaloes. The actual number of buffaloes slaughtered (as per figures provided by the State Veterinary Department) in the two municipal slaughter houses of Bandra and Kurla at Bombay is 10,644 in 1951-52 and 10,643 in 1952-53. The unaccounted for number, therefore, is about 20,500 per annum. Some of these buffaloes are said to go by road to Poona and areas in the Deccan through cattle merchants for further breeding in the villages, but actual figures are not available. At the most, they may not be more

than 5,000 per year. Thus, the net unaccounted number is anything between 15,000 and 20,000 buffaloes per year. These have to be taken as going for unauthorised slaughter, mostly outside the approved slaughter houses.

Most of the above animals can be taken as being rendered only temporarily useless due to absence of proper breeding and other facilities in the city and suburbs, as it does not pay the owner to keep such animals any further. Often, financial reasons also force them to sell such animals at a low cost.

Conditions of Milk Production

16. (*a*) *Lack of Space.*—The animals in the city and suburban stables (now Greater Bombay) are housed under appalling conditions of congestion and filth. The space available per animal is quite insufficient to maintain it in a state of health. Arrangements for light and ventilation are often far from satisfactory, as also those for drainage and general sanitation. There is no arrangement for the prompt removal of manure and urine or for their proper utilisation. A lot of manure is burnt away as fuel. Nor is there any adequate water supply for cleaning the animals or the premises in which they are maintained. There is no facility either for the maintenance of calves or for the accommodation of the attendants. Many of these attendants sleep on cots which are suspended from the roofs of the stables.

(*b*) *Disease Control and Feeding.*—Veterinary aid is inadequate. The only available veterinary dispensary is at Parel, about 12 miles from where most of the animals are now housed. Each owner of animals (there are both small and large ones) plies his trade independently of others and there is no co-operative handling of milk. The cattle-feed and hay trade also is not regulated, and shortage of wagons is said to be mainly responsible for the high prices of hay in the Bombay area, which reflects adversely on prices of milk.

(*c*) *Breeding.*—Very few bulls, if any, are available for breeding. As a matter of fact, bulls are often kept back, as conception results in a decrease in the milk yield, but the owners do not realise that by early breeding the dry period would be very much reduced and on the whole it is a better economic practice to bring the animals into calf early. The animals which are salvaged have thus to be kept for a much longer period, which often makes salvage uneconomic and unattractive.

(*d*) *Owners are not breeders.*—One important point to note in this connection is that most of the cattle owners in the area are merchants who are not breeders of cattle and have no permanent interest in the breeding and improvement of these animals. They are concerned only with the immediate return on their investment. Although they may be in this business for many years, it is not uncommon for them to buy and sell entire herds.

(*e*) *Destruction of calves.*—It is a noteworthy fact that though there are about 50,000 buffaloes* and cows maintained in Greater Bombay, the number of calves does not exceed 6,000. Most of the calves which accompany the animals when they are purchased from breeding tracts either die or are starved to death, soon after their arrival in the city stables. The few that survive are not in a fit condition to be reared for breeding. There are hardly any animals which are "home-reared" in the Bombay stables.

*This does not include the number kept at the Aarey Milk Colony.

(*f*) *Long dry period.*—As pointed out above, the arrangements for breeding the animals at the proper time are unsatisfactory. This means that a larger proportion of animals are not in-calf when they go dry. If an attempt is made to salvage them, they have, to be kept and fed for a long time. Even then it is not known whether they will conceive or not.

(*g*) *Slaughter, result of these conditions.*—All these factors, namely the uncertainty about the fertility of the animal, the high cost of maintenance in the city, the difficulty and high cost of obtaining adequate fodder and the unduly long dry period, operate against salvage of the animals. Naturally, therefore, many animals are sent to the slaughter house through sheer economic pressure and are replaced by fresh animals imported from the breeding areas. The arrangements made for the salvage of dry animals by the Bombay Government are being described separately but the fact remains that even now the number of animals salvaged each year, is very small, compared to the total population.

Conditions of Milk Distribution

17. Most of the milk consumed in the city is produced under conditions described above, except the milk provided by the Government Milk Scheme, part of which is produced at the Aarey Milk Colony and part is received from Anand. There are municipal provisions for controlling the quality of milk sold for consumption in the city, but producers and distributors, are so many and the temptation to adulterate so great, that the enforcement of these regulations is grossly ineffective. The municipal control in any case operates only during office hours and on working days, whereas milk is sold throughout the day and most part of the night, all the seven days of the week. In many cases the milkmen do not give their correct address, and summons cannot be served. Even the punishment meted out, after delayed proceedings in the Courts, is not deterrant. There is, therefore, great need for centralising the inspection of the quality of milk before distribution and to ensure that in the distribution itself, milk is not adulterated. In this connection, the Government of Bombay have introduced a Bill for compulsory pasteurisation of milk in certain suitable areas.

Regulations for control of slaughter

18. As referred to in a previous Chapter, orders were originally issued under the Defence of India Rules for preventing the slaughter of useful cattle. When the Defence of India Rules lapsed in 1948, the provisions for the control and prevention of slaughter were continued under the Bombay Essential Commodities and Cattle (Control) Act, 1946. These provisions prohibit the slaughter of bullocks, bulls, she-buffaloes, cows and heifers which are actually or potentially useful and are below 15 years. Slaughter was, however, permitted of cattle under 15 years of age for *bona fide* religious purposes and for the extraction of lymph by the Balgaum Vaccine Institute.

A more permanent measure, called the Bombay Animal Preservation Act, was later introduced under which slaughter could be permitted on the authority of a written certificate by a qualified Veterinary Assistant Surgeon appointed for the purpose. This Act is applied to 15 places, where Government inspection is in force. In other places, the old order contained under the Defence of India Rules, and later included in the Essential Commodities Act, is in force.

Recently, the Government of Bombay have enacted a more comprehensive measure, Act LXXII of 1954 entitled "Bombay Animal Preservation Act". This Act applies to the whole of Bombay State and prohibits the slaughter of animals below 15 years of age which are actually or potentially useful. It gives power to the competent authority to enter and inspect premises suspected to be used for slaughter. Slaughter outside slaughter-house is an offence. Animals used for lymph or serum or other experiment or research in a Government or Government recognised Institute are exempted, as also slaughter in the interest of public health or prevention of contagion spreading to other animals.

Quota fixed for slaughter

19. Within the municipal area of Bombay, there are two main authorised slaughter houses. The quota fixed by Government for slaughter in these slaughter houses is 250 cattle and 17 buffaloes per day. In Bombay State, as a whole, however, there are 73 regulated slaughter houses and about 20 non-regulated ones. The latter are managed by butchers themselves. Nearly 2 lakhs of animals are slaughtered in them annually.

Quality of animals slaughtered

20. The rate charged for slaughter in authorised slaughter houses is Rs. 15 per buffalo and Rs. 1-8-0 per cattle. The rate for buffaloes has been kept higher in order to discourage their slaughter because it was known that only useful buffaloes would be brought for slaughter. In his evidence, the Superintendent of Markets, Bombay, indicated that in spite of restrictions imposed, a few good quality animals were still being passed for slaughter to meet the demand for good quality beef.

The quality of cattle slaughtered is generally very poor. They are mostly old bullocks unfit for work. During the last year in the two Bombay slaughter-houses, 74,777 cattle were slaughtered but out of these only 82 were cows. The better class animals were presumably slaughtered in unauthorised houses because they fetch higher returns.

Prices of slaughter cattle

21. The prices offered for slaughter stock varied between Rs. 100 to Rs. 250 depending upon weight and condition. The average cow or bullock yields 250 lbs. and a buffalo 400 to 450 lbs. of meat (dressed weight). The price of beef in Bombay City is about Rs. 1 to Rs. 1-8-0 per seer. There is, therefore, more profit in slaughter of buffaloes.

Enforcement of Regulations—Difficulties

22. The enforcement of regulations regarding slaughter of animals, bristles with practical difficulties of various kinds. Recently a Veterinary Officer was stabbed to death in the Bandra Slaughter House, Bombay, as he was said to be strict and did not pass certain animals for slaughter. The main reasons why the restrictions imposed have not proved effective are :—

(*a*) The staff for veterinary inspection is mostly inadequate.

(*b*) There is little or no check over the work of Veterinary Inspectors and in certain cases even young animals are declared as aged and passed for slaughter when there is pressure from the butchers.

(c) According to the evidence which has been presented to the Committee, about 90 per cent. of the animals not approved for slaughter are, in due course, slaughtered stealthily outside the municipal limits.

(d) The determination of the exact age of animal which has passed its prime, is difficult and to some extent it is a matter of personal opinion on the part of the inspecting officer.

(e) Most of the male calves of buffaloes do not serve any useful purpose in many cases and are unwanted. There is a demand for their slaughter, but according to age regulation, they cannot be passed for slaughter. They are consequently slaughtered in unauthorised places.

(f) The police have certain powers for enforcement of the slaughter regulations, which are embodied in the Bombay Police Act of 1951. But these powers are not adequate to control illicit slaughter and contraband trade in meat. It was pointed out to the Committee that punishment awarded was not deterrant enough and that it was impossible in most cases to provide sufficient evidence to enable the Courts to convict the offender.

The Police have no power to confiscate the articles seized. The police force is also inadequate for properly dealing with this aspect.

(g) There are several evasions of law which cannot be adequately dealt with. Thus under the guise of "home-delivery arrangements", packets of beef are delivered. The onus of proof in all such cases of unauthorised slaughter of cattle and sale of beef is on the municipal staff. Adequate provisions to prevent this were proposed in a Bill but these were not given effect to.

Cruel Practices

23. New laws always bring in new offences. In order to enable the animals to be passed for slaughter, certain malpractices are resorted to, which are very cruel. Thus the udders of buffaloes which have gone dry but are still fit for further breeding are maliciously infected by introducing foreign matter in the teat canals. Another device is to maim the animals, or to break their teeth and then bring them again to the slaughter houses. Some animals are starved and made to look lean and emaciated when they are presented to the Vererinary Officer.

There is no evidence to show that "*phooka*" is practised in the Bombay area, as there are mostly buffaloes and *phooka* is usually practised on cows.

It was reported that during the rail journey from the Punjab to Bombay, the railway staff often purposely withhold watering facilities for the animals Watering arrangements *en route* are said to be poor in any case at important junctions where the cattle wagons are detained. It is also not realised that discomfort, plus thirst, affects the milk yield for the remaining part of the lactation.

Demand for Beef

24. There is a definite demand for beef from a section of the population arising both from habit as well as from its relatively low cost. It is generally the poorer sections of the population of Muslims, Christians, Scheduled

Castes, etc., that consume beef. There is a limited demand from foreign population also. According to data collected by the Agricultural Marketing Adviser, the annual production of a beef in Bombay State is 16,573 tons which is about 17·3 per cent. of the total production of beef in India. This is estimated on the basis that 1·65 lakhs of oxen are slaughtered annually in Bombay State, which yield, on an average, 225 pounds of beef per head. In addition, about 0·55 lakhs of buffaloes are slaughtered annually which, at the rate of 450 pounds per animal yield 11,000 tons of buffalo flesh. This constitutes about 15 per cent. of the total production of buffalo flesh in India. Presumably, most of this is consumed in the State, because the quantity of exports is reported to be negligible except a temporary demand for frozen beef from Honkong, China and other neighbouring countries caused by the conditions of the Korean War. During this short period, about 500 tons of frozen beef were exported per year. The only other outlet for beef in India is for supply to shipstore which amounted only to 1,695 pounds during 1949. This is an insignificantly small quantity and it may be assumed that practically the whole of beef and buffalo flesh produced in Bombay is consumed locally. What part of it is consumed in the city and what part outside, is not known.

Price of Beef

25. Reference has been made in an earlier Chapter to the comparative prices of beef, buffalo flesh, mutton and pork. The figures for 1938 in Bombay were As. 0-3-9 per pound of beef, As. 0-2-9 per pound of buffalo flesh, As. 0-5-6 for sheep mutton, As. 0-5-6 for goat flesh. In 1950, these prices were respectively As.0-12-0, As.0-11-0, Rs. 1-3-0 and Rs. 1-3-0 for the various products. The comparatively lower prices of beef, and buffalo flesh, which are only half that o other meat, is the main reason for their demand. Habit is perhaps secondary

Meat Marketing Regulations

26. There is a definite legislative provision which regulates the marketing of beef and other meat in the city area. Certain specific provisions are laid down for the observance of hygienic conditions in the premises where beef and buffalo flesh are sold. Nothing can be sold without a permit and no permit is given unless the conditions relating to the premises and the sale of beef are fully satisfied. The hawking of beef is prohibited. It was, however, brought out in evidence that there are several practical difficulties in strictly enforcing these regulations.

Salvage of Cattle Progress

27. Government of Bombay have during the last several years taken positive steps for the salvage of useful dry animals from Bombay City. Prior to 1944, very few producers had their own arrangements to send out dry stock to the districts and to get them back immediately prior to calving. But in 1944 the Punjab and other exporting areas imposed restrictions on exports from their breeding tracts. In order to keep up the milk supply, Government had to arrange for salvage of dry animals. The producer was given a permit to import new cattle, only to the extent to which he salvaged his dry stock.

This forced the cattle-owners to make their own arrangements for salvage. On the Government side, the first effort was to arrange for salvage through the agency of the Bombay Humanitarian League. The league received animals from the owners and sent them to villages in Mehsana, Kaira,

Ahmedabad and other districts in the north of Bombay. The number of animals so salvaged between 1945–50 was about 5,000 but as the condition of salvaged animals was not quite satisfactory, the response from the owners became poorer and poorer. The subsidy given by Government under which this salvage was arranged was accordingly withdrawn from June 1947. Secondly, the Government appointed seven salvage agents who possessed large tracts of land in Gujerat. Under this arrangement, about 930 animals were salvaged.

Another step taken was to give a transport subsidy amounting to half the transport cost for the outward journey of dry animals, subject to a minimum of Rs. 5 per animals. This scheme was in operation for a period of 5 years and a sum of Rs. 1·5 lakhs was spent on it. Yet another step was the salvage of animals through Government farms established at Palghar, Jamner and Kedgaon. In the early stages, the dry animals were purchased by Government from the owners outright and were taken to salvage farms. On refreshening they were brought back and sold. This system did not work satisfactorily and there were heavy losses. It was given up in favour of keeping animals only as "boarders".

The following are the figures of salvage during 1944–49:—

Year	Animals sent for salvage	Animals received back from salvage	Fresh animal imported (approximate)
*1944-45	11,648	2,830	44,000
1945-46	25,954	13,135	32,000
1946-47	26,997	23,731	21,000
1947-48	17,816	17,763	26,000
1948-49	13,510	13,802	30,000

It will be seen from these figures that during the first three years, the number of dry animals sent for salvage was on the increase and so also the number received back from salvage. The number of fresh animals imported tended to decrease correspondingly. During the two subsequent years, however, the number of animals sent out or received back went down considerably. The number of fresh animals imported during these two years have also gone up. It has not been possible to ascertain the reasons for this change.

Salvage from Aarey Colony

28. Since 1949 when the Aarey Colony was established, the salvage was confined to dry animals housed in the colony. These were accepted as "boarders" in Government farms in Palghar (50 miles from Bombay). In the first two or three years all dry animals were accepted but as the demand for salvage went up during 1953, salvage was restricted to pregnant animals which had yielded at least 4,000 lbs. in a lactation. The cost of feeding in Palghar amounted to a rupee per head per day, in addition to an average supervision charge of As. 2 to As. 3 per animal per day. The Government,

*N.B.—Animals returned after salvage each year are not necessarily the same as sent out in that year.

till recently, charged only As. 12 per day which has been raised to As. 15 since April, 1954. During 1949 to 1953, the total amount of subsidy so paid amounted to Rs. 2·37 lakhs for the 4,500 animals salvaged during the period. The subsidy paid per animal approximated to Rs. 50. During 1952-53 the amount of subsidy paid was only Rs. 25 per animal. The number of animals salvaged under this system was 544 in 1949-50 and 720, 1301 and 1,958 and 2,012 respectively in the following years.

Out of 12,000 animals in milk maintained in the colony, only about 2,000 animals per year were salvaged on Government farms. The owners have also now their own arrangements for salvage in their native places in the northern districts of the State. Whereas only 80 animals were salvaged in 1949-50, the number rose to 1,124, 1,979, 2,924 and 4,876 animals in the four subsequent years. This may be taken as a definite item of improvement in the situation on the transfer of animals from the city stables to the colony. The latest figures of the numbers salvaged both by Government and the owners come to nearly 7,000 animals per year which is about 65 per cent. of the number of animals in milk in the Aarey Colony. This is largely due to timely breeding and good management when the animals are in milk. It means that almost all the animals, which are worth preservation, are being now salvaged.

The average period of stay of the dry cattle in the districts ranged between 6 to 8 months and the charges payable were Rs. 20 to 25 per animal per month excluding transport charges to and fro. The transport charges amounted to Rs. 60 to Rs. 100 per animal according to distance under private salvage as against only Rs. 16 per animal for animals salvaged at Palghar.

The cost of salvage will decrease with progressive improvements in the arrangement for breeding. By bringing the buffaloes into calf earlier in the lactation, the dry period and the stay at salvage farms will be reduced.

Summary of Results of Salvage

29. Considering the position as a whole, during the five years 1949-50 to 1953-54 a total of 21,138 fresh animals were imported into the city as against 17,132 animals salvaged. The proportion of the total strength of the Aarey Milk Colony which has been replaced by salvaged animals increased from 19 per cent. in 1949-50 to 55 per cent. in 1953-54. The replacement by animals imported from breeding areas was 98 per cent. during 1949-50 which dwindled to 41 per cent. in 1953-54.

To the above extent drain on the breeding areas has been reduced and the licencees stated before Committee that they would be satisfied if only about 25 per cent. of their total herd were allowed to be replaced, with newly purchased animals. Subsequently, it was learnt that Government have now indicated to them that after 3 to 4 years (from October 1954), no new animals would be allowed to be purchased and they must depend upon their own reared or salvaged animals for replacement of the herd.

The Bombay Milk Plan

30. (*a*) *Objectives.*—The Bombay Milk Plan, started about 8 years ago, is a comprehensive long range effort for removing the many evils associated with keeping of milch animals inside the city. It is clear that the wastage of high class animals involved is a direct result of the unnatural conditions in which they are kept. The only possible way in which these evils can be avoided

is by the replacement of the city produced milk by milk produced in rural areas by animals kept in healthy surroundings. The Bombay Milk Plan is designed to effect this. The main objectives of the plan are:—

(1) Removal of cattle stables from Bombay to a suitable site outside.

(2) Bringing in of long distance milk.

(3) Organised distribution of processed milk in Bombay.

(*b*) *Removal of stables and facilities in Aarey.*—In regard to the removal of stables, considerable progress has been made in regard to the city proper where there were nearly 15,000 animals exclusive of calves and young-stock. To shift these, a colony has been constructed on an area of about 3,300 acres located 20 miles away from Bombay. On this area accommodation has been provided for about 15,000 animals in 26 self-contained units. There is also a Central Dairy where all the milk produced is collected, pasteurized and bottled and sent out for distribution in the city through some 700 centres. In the various units, the accommodation includes milking sheds, dry-stock sheds, calf pens, calf lines, bull pens, sick lines, milk recording room, exercise grounds, and quarters for the owners and their staff. Provision is also made in these sheds for ensuring satisfactory hygienic conditions by arranging for the removal and economic utilization of the manure and urine. These are utilised for the intensive cultivation of perennial grass. Each unit has a small area attached to it where fodder is intensively cultivated. At present about 12 lbs. of green grass is available daily for every animal throughout the year. The milk yield has gone up by about 25–30 per cent. in the course of 5 years, mainly through better feeding and management.

The Aarey Colony has been developed with roads, water supply, electricity, veterinary hospital and artificial insemination centre in addition to the 26 Dairy Farm Units referred to above. There is provision for another 4 to 6 units which will absorb the remaining 3,500 cattle still left in the city area. As soon as this is completed, there will be a second project to take care of the suburban cattle in the Greater Bombay Area.

The milk producers are charged a weekly licence fee and a daily occupation charge which work out approximately to Rs. 13 per animal per month. This includes not only all the accommodation required for the animals but also that required for attendants and the owners themselves. Free veterinary aid is also included in this and at the present moment, nothing is charged for artificial insemination. Cattle feeds and hay are provided to the owners at cost price. One of the conditions of occupation is that the milk should be sold to Government and should be delivered twice a day at the large Central Dairy located at the Colony. The dairy has a processing and bottling capacity of 500 maunds per hour. Costing of milk on scientific basis has been systematically adopted according to which, the purchase price is fixed, leaving approximately a 10 per cent. profit for the owner. From this they have to pay the taxes.

Income-tax Law Discourages salvage

31. Here it is important to record that the licencees who keep large herds of cattle at the Aarey Milk Colony stated to the Committee that the Income-tax authorities do not take into account the transfer of animals for salvage purposes and consider them at the same value as a milking animal. Only the useless and unfit animals sold outright are taken into account at a lesser price. This encourages sale of animals, outright instead of salvage on an adequate scale and this difficulty must be removed from the way of the city producers.

Calf Rearing Scheme

32. A special calf rearing scheme has also been taken in hand at Aarey, under which is proposed to rear each year 1,200 selected calves of high yielding buffaloes and cows. These will be sold to the owners upon maturity. A subsidy of Rs. 240 is given by Government of India on each matured calf reared under this Scheme.

Bringing in of Long Distance Milk

33. Collection of milk from about 65 villages has been organised on co-operative basis within a radius of 15 miles around Anand which is a station, 260 miles North of Bombay. The milk is pasteurised by the Union of Co-operative Societies and is transported to Bombay in cans, in insulated railway vans. 16 such vans have been provided at Government expense on the Western Railway. The milk arrives in good and wholesome condition at the Colony, twice a day 12 hours after the despatch from Anand. There it is repasteurized and bottled before distribution. The Union is given a liberal processing charge per maund of milk, which leaves it a good profit, a part of which is distributed as bonus to the primary societies and producers. The purchase price of raw milk fixed by Government in the villages is also substantially higher than what other buyers are able to pay. This gives a high premium in price to the producers. The Union itself has built up a large capital due to the introduction of the Bombay milk scheme. In addition, out of the margin left on sale of Anand milk in Bombay, a sum of Rs. 3 lakhs per annum is being spent since the last 4 years for cattle improvement work including veterinary aid, provision of pumping sets in the villages, cement concrete cattle standings, improvement of grazing lands, quality control on milk and prizes for efficient management of co-operative societies.

After gradually developing the area for about 10 years during which period roads costing about Rs. 25 lakhs were constructed to facilitate collection of milk, it is now possible for approximately 1,000 maunds of milk being brought daily from Anand. This is the production of some 12,000 buffaloes. There are, however, 130,000 buffaloes in that area, and more milk could be brought if there was plant capacity. With the further assistance of Government the Union is, therefore, now able to construct a new and large dairy for processing more milk and also for making of products, including milk powder, from the surplus winter milk, for marketing which difficulty is experienced. The new dairy is expected to go into production by the end of 1955. For the milk powder scheme, assistance has been received by the Union from the U.N.I.C.E.F. organisation and the help received is to be paid for by the supply of free milk to the children to the value of 1·5 times the cost of machinery.

Distribution of Processed and Bottled Milk

34. Distribution is done on a cash and carry basis, through 700 milk distribution centres. Everyday over Rs. 1 lakh worth of milk is sold on cash. By analysing over 2,000 samples of milk daily at different stages, very strict control on quality of milk is maintained both at Anand and at the Milk Colony, with the result that the quality of milk distributed by the milk scheme contains over 7 per cent. fat that is, 20 to 25 per cent. more, than the standard of purity laid down by the municipality. This would not have been possible if thousands of producers were allowed to sell the milk directly to the very large number of house-holders.

Purchase and Sale Price

35. At present milk is purchased from the colony producers at As. 12 per seer provided it contains at least 7 per cent. fat. Anand milk lands at the colony at about As. 11 per seer containing about 7·3 per cent. fat. Pasteurised and bottled whole milk (Colony produced and Anand) is sold at As. 14 per seer ex-centre. Milk sold outside the scheme is more expensive and its quality is poor. The scheme can, however, take on consumers only to the extent it has the milk to supply throughout the year. The quantity of whole milk now sold is approximately 2,500 maunds per day.

Toned Milk

36. For the poorer classes who cannot afford to buy the whole milk, a special grade of milk called "Toned milk", is prepared which contains 3·0 per cent. fat and 9 per cent. solids, not fat and is made by mixing 43 parts of buffalo milk, 57 parts of water and 5 parts of skim milk powder. It is also pasteurised and bottled and is sold from 5th December, 1954, at As. 6 per seer, against the previous price of As. 8. About 1,300 maunds of this milk are sold daily. About 40,000 children are given daily ¼ seer each of toned milk by the municipality free of cost. The Bombay milk scheme thus handles about 3,800 maunds of milk daily; a quantity far in excess of that handled by *all* the milk schemes of State Governments, throughout India. Another important feature is that in about six years it has covered over 50 per cent. requirements of a large city like Bombay.

Financial aspect of the Bombay Milk Plan

37. Approximately 150 tons per month of skim milk powder is imported by the Bombay Government from abroad and it is distributed to over 6,000 restaurants in Greater Bombay area twice a month. According to existing orders, no restaurant is permitted to use fresh milk in tea and coffee. The powder is sold at a profit which ranges between Rs. 50–60 lakhs per annum. This amount is used for capital expenditure on the Aarey project and for meeting revenue losses in early stages of the scheme.

On the Aarey Milk Colony so far, approximately an expenditure of Rs. 4 crores has been incurred including acquisition of land, construction of roads, laying of electricity, water supply, 26 dairy-farm units, veterinary hospital, central dairy, dairy and agricultural machinery and other items. The rent recovered from the licencees pay for 3½ per cent. interest, and 3 per cent. depreciation and maintenance expenses on the capital investments.

The difference in the purchase price of colony milk and the landed price of Anand milk on the one hand, and sale prices of whole milk at As. 14 and toned milk at As. 6 per seer, cover the entire cost on over-heads, on pasteurisation, bottling and distribution, which works out at Rs. 4 per maund of 85 lbs.

Advantage obtained from Milk Plan

38. From the above description it is seen, the Bombay City is much in advance of other cities in India in regard to organised production and distribution of milk. This is due to concerted action having been taken on a large scale, some eight years ago for tackling the problem through, what is known as the Bombay Milk Plan. As a result of this plan, the situation has appreciably improved in the city proper with regard to supply of pure

and safe milk, but much remains to be done in the suburbs, which have now been enveloped in the Greater Bombay area. These will be covered eventually and the evil of premature slaughter of useful milch cattle will be eradicated or, at least, mitigated when the plan is fully implemented in accordance with the intentions of its progenitors. The combination of private enterprises with State effort in solving the city milk problem and in the economic production of milk is the most useful and fascinating feature of the project.

Future Development

39. It is understood that for the remaining half of the milk supply, out of the much larger number of buffaloes, the Government are considering colonising only 10,000 milch animals from the suburbs at a suitable place, and to arrange for the remaining milk to be brought from rural areas of Anand and elsewhere. Arrangements are also in hand to create adequate salvage societies for dry animals from both the Aarey Colony and the second Colony at a suitable place where dry animals can be kept economically. Similarly, arrangements are being planned for proper rearing of calves on an adequate scale to reduce the purchase of new animals for herd replacement.

In the new project it is proposed to develop production of green fodder at the rate of at least 50 lbs. per animal per day against only about a third of this supply at present. There are three factors, *viz.*, (a) salvage, (b) rearing of calves, and (c) adequate green fodder supply that are important for economic production of milk and these will receive due attention when the second colony is set up in Bombay.

सत्यमेव जयते

CHAPTER IV

THE PROBLEM IN CALCUTTA CITY

CONSUMPTION OF MILK IN THE CITY

40. Calcutta is the largest city of India. Almost 25 per cent. of the population of West Bengal lives in greater Calcutta, which extends to about 40 miles. Some six million people reside in this area, which has the largest concentration of industry throughout the Republic.

Although Calcutta has grown into such a large and important city, its system of milk supply has remained medieval. According to a survey made in 1949-50, the daily milk supply of Calcutta and its adjoining municipalities of Howrah, Garden Reach and Behala was as under:—

(Quantity in maunds)

Source of Supply	Cows	Buffaloes	Mixed	Total	Percentage of Total
Produced in the city	1,411	2,924	..	4,335	82.9
Brought in by rail	674	143	78	895	17.1
TOTAL	2,085	3,067	78	5,230	100.0

A small quantity of milk was also brought in by road, but that was not determined and has, therefore, not been included in these estimates.

It will be observed that, of the total daily supply approximating 5,230 maunds, some 4,335 maunds or 82·9 per cent. was produced within the city.

CATTLE POPULATION

41. The number of milch animals kept to produce this quantity in 1949-50 was as follows:—

	Cows	Buffaloes	Total
Calutta	18,465	17,619	36,084
Howrah	4,611	4,168	8,779
Garden Reach	497	832	1,329
Behala	2,701	412	3,113
TOTAL	26,274	23,031	49,305

These animals are kept in stables, or on open sites all over the city. There is hardly an area free from them. According to the Calcutta Municipal Act, no animals must be kept without a licence. But, in actual practice, few stables are licensed.

Conditions under which Milk is produced

42. The conditions under which these animals are housed are appalling. The stables are congested and insanitary providing ideal conditions for the spread of contagious and other diseases. As a result, thousands of animals die annually. Again, due to paucity of accommodation, animals still in their prime, when they go dry, cannot be kept till they refreshen—they have to be got rid of to make room for freshly calved animals to keep up the milk supply. While some dry cows are salvaged, many are sold for slaughter.

Number of Milch Animals Imported into Calcutta

43. Because the local animals are very poor milk yielders, few of them are kept in the city. Calcutta imports thousands of cows and buffaloes annually from the Punjab, Uttar Pradesh and Bihar. To earn maximum profit and to make the best use of the available very inadequate accommodation the commercial milk producers buy the very highest milk yielding animals they can purchase.

The milch animals are almost all brought in by rail to the Howrah Railway Station. Few animals, if any, are brought in by road. Fairly accurate data regarding the numbers imported annually, are therefore, available.

According to railway returns, the following numbers were imported into Howrah during the past 2 years :

	Cows	Buffaloes	Total
1952-53	25,533	28,755	54,288
1953-54	32,849	31,771	64,620

The above figures relate to milch animals only. As, in most cases, freshly calved animals are brought in, almost an equivalent number of calves was also imported each year.

Numbers of Milch Animals Exported from Calcutta

44. While Calcutta imports some 55,000 to 65,000 freshly calved milch animals annually, her re-exports of such animals to other parts of the Republic or outside India are negligible. As a measure of salvage however, some of these cows, when they go dry, are sent out. Such movement is both by rail and road. While figures of movements by road are not available, the numbers re-exported by rail during the past 2 years are given below:

	Cows	Buffaloes	Total
1952-53	6,338	8,165	14,503
1953-54	6,738	8,883	15,621

It will be seen that some 15,000 milch animals, when they went dry, were sent out of Calcutta by rail during each of these two years.

In addition to the above, 6,326 yearling calves were booked from Howrah mostly to stations in Bihar during 1953-54. Similar figures for the previous years were not collected, but, presumably, would be of the same order.

Wastage of Milch Animals in Calcutta

45. From the corresponding figures of imports and exports for each year, the following number of milch animals remains to be accounted for :—

	Cows	Buffaloes	Total
1952-53	19,195	20,590	39,785
1953-54	20,061	22,938	48,999

It will be seen that 39,785 and 48,999 fewer milch animals left Howrah than came to it during 1952-53 and 1953-54 respectively. Some of these animals must have died due to natural causes. Assuming that the annual rate of mortality from all causes was 10 per cent.* of the number imported, the deaths would account for 5,429 and 6,462 animals during 1952-53 and 1953-54 respectively. That still leaves unaccounted for 34,356 animals, imported in 1952-53 and 42,537 animals imported in 1953-54.

As was previously stated, some animals, when they went dry, were also sent out by their owners, of salvage. There is little or no salvage within West Bengal itself. While the volume of such road movement is not known, because of the long distance between Calcutta and Bihar, the number would not be large. In any case, it would not be as large as the movement by rail. But even if it is assumed that movements by road equalled those by rail, some 20,000 milch animals imported in 1952-53 and 27,000 milch animals imported in 1953-54 remain unaccounted for during these 2 years.

Data are wanting to show if the number of milch animals kept in the City increased during those two years. If it did, some of the numbers unaccounted for must have been absorbed in that manner. Assuming that the comparatively larger numbers imported during 1953-54 were because of this reason, there would still be left some 20,000 milch animals unaccounted for. This might be taken as the *minimum* figure of annual wastage of high quality milch animals in Calcutta. Such animals must have mostly gone for slaughter.

Wastage of Calves in Calcutta

46. It has been stated previously that 6,326 yearling calves were exported by rail from Calcutta during 1953-54. The number of milch animals and, therefore, the number of calves imported into the city that year was, however, 64,620. Normally some 15,000 calves are kept in Calcutta. Assuming that this number did not go up, the remaining number of 43,294 calves remain unaccounted for. Actually, for want of proper attention and adequate nutrition the bulk of these calves died or were starved to death soon after their arrival in city stables. The reason for this heavy mortality is that milk is too valuable to be spared for feeding of calves kept in the city—the milkmen draw out and sell every drop of it. Each of these calves is a potential milch animal, bull or bullock. That such a large number of them are starved to death every year is a heavy national loss.

Conditions for Up-keep of Milch Animals in Calcutta

47. (a) *Congestion.*—It has already been stated that the cows and buffaloes, which are brought to Calcutta from the other States, are some of the best milch animals that the Republic possesses. These animals are maintained under very unnatural conditions. They get little or no green fodder or grazing

*See comments in similar estimate under Chapter III in para. 14.

facilities. In many stables in Calcutta, it is a painful sight to see hundreds of quality cows and buffaloes herded together with very little space to move around. Such animals go into these stables when brought to Calcutta, and many of them, at the end of the lactation, are either walked to the slaughter house to be slaughtered or are walked to a railway wagon to be taken to Bihar. Their walk to the slaughter house or to the railway wagon is the only exercise that they get over a period of 8 or 9 months.

(b) *Phooka.*—Because many cows lose their calves soon after they are brought to the city, and because normally they are not used to being milked without their calves, the milk producers take recourse to cruel practices like '*phooka*' to milk them. That is the only method known to them to milk the cows, which, without their calves and without this practice, if not milked regularly, would, in most cases, go dry.

(c) *Cows not bred.*—The plane of nutrition of milch animals maintained in city stables is extremely high which makes many of them over-fat and, therefore, sterile. Many others suffer from Mastitis, which renders them useless as dairy animals. Although the Government of West Bengal has provided an artificial insemination service in Calcutta, it is not availed of by the milkmen intentionally. This is because an unbred animal milks longer than an animal in calf, and most milk producers in Calcutta are only interested in the production of the maximum quantity of milk an animal would yield in a lactation. They do not care as to what happens to that animal at the end of the lactation. Their only interest is to replace it with another newly calved animal to keep their business going. This means that the normal milking life of many of the milch animals in Calcutta is barely a lactation and because of the very heavy cost of replacement, milk production in the City is very expensive. But that does not concern the milk producer so long as he is able to sell his product, for it is the consumer who pays for this expensive method of milk production.

Loss of high quality cows and buffaloes

48. That the foregoing system of milk production, which leads to such a heavy annual loss of high quality cows and buffaloes and their progeny, is very wasteful of national assets, needs no emphasis. But that is not all. The system has also created serious problems of public health. Because the stables abound all over the city; insanitary conditions prevail. Dung and urine collect all round these stables providing ideal conditions for the multiplication of flies and spread of diseases like cholera, dysentery, typhoid, etc. Sewers get chocked up with manure and the city drainage is thrown out of gear. Milch animals stray about in streets blocking up traffic and occasionally injuring pedestrians.

Regulations against slaughter of milch animals in Calcutta

49. Under the West Bengal Animal Slaughter Control Act, 1950, which is in force in all the municipalities with one or more organised slaughter houses, cattle, unless over 14 years of age and unfit for work or breeding, or permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease, cannot be slaughtered. According to this Act, before an animal can be allowed to be slaughtered, the person desiring to slaughter it must obtain a certificate from the veterinarian in-charge of the slaughter house to the effect that the animal concerned does not belong to any of the categories prohibited for slaughter.

Working of Animal Slaughter Control Act

50. As milch cows and buffaloes exceeding 14 years of age would normally be useless as producers of milk, the foregoing Act, if efficiently enforced, would preclude the possibility of useful animals being slaughtered. The Committee, during their visit to Calcutta, visited the slaughter house at Tangra, where the bulk of beef animals are slaughtered. Thier enquiries revealed that, of the animals offered for slaughter, roughly 40 per cent. were not approved for slaughter and that such animals were taken away by their owners.

The Committee could not find out with any measure of certainty as to how such animals, as were rejected for slaughter, were ultimately disposed of. Such animals had already passed into the hands of butchers. Because they had been sold for slaughter, it showed that there was no other use for them in the city. Moreover, while there was a ban on the slaughter of useful animals within the city of Calcutta, such a ban did not extend to the adjoining suburban or rural areas. The Committee got some evidence which suggested that such animals were slaughtered outside the city and the beef, which was no doubt contraband, was smuggled into the city. This would show that the existing legislation regarding control of slaughter of useful cattle was not effected and could be circumvented fairly easily.

Unfortunately, the records of slaughter maintained at the slaughter houses in Calcutta do not state the sex of the animals slaughtered. Only figures of total number of animals slaughtered are available. As a result, it was not possible for the Committee to find out exactly how many milch animals were slaughtered annually and how these figures compared with the estimate of annual wastage (20,000) mentioned previously.

Solution of the Problem

51. It should be obvious that the problem of slaughter to the extent it exists, is really the outcome of the system of milk production which is obtaining in the City. So long as Calcutta would continue to derive her milk supply mostly from the city stables, the foregoing unsatisfactory conditions must continue. The only solution of the problem lies in ending the present wasteful system and in developing, like all other Western cities, an alternative system of milk supply according to which milk, instead of being produced in the city stables, is produced in and brought from the rural areas.

To abolish the city stables is, thus, fundamental; although that should not be done without arranging for milk supply from outside; for if the stables are abolished without organizing alternative supply from outside the city, not only will a large number of milk producers become unemployed, but also the city's milk supply will be completely disorganised. Realizing this, the State Government has already set about with a view to provide a permanent solution of the problem. Action regarding this has been taken in the following three directions :—

(*i*) improving the quality of indigenous animals by proper breeding, feeding, management and disease control;

(*ii*) collection of milk from rural areas, and its sale in the city after pasteurisation; and

(*iii*) enactment of legislation to abolish city stables, and establishment of a milk colony to resettle the milch animals which will be dislodged as a result of abolition of the city stables.

The progress already made in each of these three directions is briefly indicated below.

IMPROVING THE QUALITY OF LOCAL CATTLE BY PROPER BREEDING, FEEDING, MANAGEMENT AND DISEASE CONTROL

52. The State Government with the aid of Government of India, have set up a Central Livestock Research-*cum*-Breeding Station at Haringhata at a cost of roughly Rs. 1 crore. The area of this station is approximately 3,000 acres. It has multipurpose activities, but chief of them are breeding of quality livestock, particularly cattle, so that such livestock might be made available for improving the State's livestock. The strength of the herd of cattle is 2,000 which provides 200 quality stud bulls annually. These bulls are supplied to the numerous key village blocks which have been set up in the State.

As the name of the Station implies, research work concerning livestock husbandry is an equally important activity of the Haringhata Station. Important research work regarding breeding and nutrition of cattle is in progress. Research work aiming to evolve improved varieties of fodders and grasses is also in progress.

The results of the aforesaid researches are passed on to the villages through the extension staff of the Livestock Branch of the Animal Husbandry Directorate of the State. This staff is also responsible for the work of cattle improvement which is in progress in the Key Village Blocks. This work includes provision of an artificial insemination service, supervision of the breeding of quality bulls which are at stud in these areas, carrying on of propaganda with a view to popularise practices of sound animal management and husbandry, and supplying, at subsidised rates, seeds of fodder crops with a view to popularise the growing of such crops by villagers.

The Disease control Staff of the Directorate of Veterinary Services and Animal Husbandry is similarly engaged on the task of disease control. All the veterinary hospitals have been provincialised or will be provincialised shortly. Mass inoculation work aiming to wipe out Rinderpest from the State has been in progress for the past several years with very good results.

It is hoped, that the work in progress in the foregoing directions would bring about the requisite improvement in the indigenous animals, which, when that happens, would make West Bengal more or less independent of the supply of milch animals from other States. Milk would then be produced in abundance in her rural areas for supply to the Metropolis. Such work must, however, be necessarily slow and quick results cannot be expected.

COLLECTION OF MILK FROM RURAL AREAS AND ITS SALE IN THE CITY AFTER PASTEURISATION

53. The Haringhata Station is also provided with a Dairy Factory which is equipped with a modern plant for the pasteurisation and bottling of milk. The capacity of this plant, when worked two shifts a day, is 500 maunds.

Some 40 to 50 maunds of milk, produced by the herd of cattle belonging to the Haringhata Station is available for processing by this plant. In addition another 250 maunds of milk, collected from the rural areas adjoining the Station, is processed and bottled. The total quantity, aggregating 300 maunds per day is sold in Calcutta at present. This quantity is increasing almost every day as more and more milk can be collected from the rural areas.

One important development in this direction has been the establishment of a milk collection and chilling plant at Fulia, some 25 miles away from the Haringhata Station. This plant is provided with equipment necessary for the chilling and storage of milk. Although it started functioning some 3 years back, already some 40 maunds of milk is being collected and chilled daily. Such milk is transported once a day to the Haringhata Dairy Factory for processing there. It is intended to set up similar milk collection and chilling plants in other suitable "milk pockets" of West Bengal so that milk produced in these parts may be collected, processed and transported to Calcutta for supply to the city.

The Haringhata project serves the area on the eastern bank of Ganga. But a large quantity of milk is produced in the Hooghly district, which is located on the westren bank of that river. Such milk is mostly converted into *Channa*, which is supplied to Calcutta at present. This method of disposal of milk does not give a good return to the primary producer. Naturally, he does not make any special effort to produce more milk. But if the same milk were disposed of in the liquid form in Calcutta, the extra return would provide a great incentive to the producer. He would then try to produce more milk by giving proper attention to the feeding and breeding of his stock. This would benefit him as well as the people in Calcutta. However, because of the intervening river, the Haringhata Dairy cannot handle this milk. There is, therefore, a scheme, which is sought to be jointly financed by the State Government and the UNICEF, to establish another factory at a suitable place near Calcutta to handle the milk, which is available in the Hooghly district, but is being disposed of as *chhanna* at present. When that scheme materialises, it is hoped Calcutta will receive an additional supply of some 1,000 maunds of milk daily.

Distribution Arrangements

54. The State Government has set up a special organization for the sale of Haringhata milk in Calcutta. Under this organization 75 Government milk shops have been set up in different parts of the city, wherefrom people can buy their daily requirement, of milk at fixed rates. This organization is growing by the addition of three or four new shops each month, as more milk comes to hand. The ultimate aim is to supply the total milk requirements of Calcutta through these shops.

The foregoing scheme is being run on business lines. It is not only self-supporting, but is earning a profit, which is being utilized for financing all further expansions under the scheme. Moreover, it is making available, pasteurised milk of assured quality to public at fixed rates, which are lower than the price charged for a much inferior product by the milkmen. The scheme is, therefore, proving very popular and is making rapid progress. It is helping to bring down the price of milk in Calcutta.

Need for Milk Colony

55. While various steps are being taken to build up a new system of milk supply for Calcutta, a system under which rural areas will be drawn upon to an ever-increasing measure to meet the city's requirement, it is likely that it would be possible to meet only a fraction of the total requirement in this way. This is because, firstly, the total requirement of Calcutta is very large and secondly, the milk yield of the indigenous cows (West Bengal has very few buffaloes) is very low. No doubt work is in progress to improve the milk yield of these cows. But such work will take many years to bring about any material improvement. It would be necessary, therefore, to continue to

depend upon the milch animals, which are at present kept in the city, to provide a large part of the total requirement. That should not mean, however, that the existing city stables must be allowed to continue, as this evil must be done away with as expeditiously as possible. Recourse should be taken to a milk colony scheme to re-settle milch animals which would be dislodged from Calcutta by abolishing the city stables. The Committee were informed that the State Government have a definite project already under implementation with this end in view.

LEGISLATION TO ABOLISH CITY STABLES AND ESTABLISH A MILK COLONY

56. The Calcutta Municipal Act provides for the licensing of all milch animals kept for commercial purposes within the city. But few such animals are actually licensed.

The Committee were informed that legislation is now in view to register and license each milch animal, whether kept for domestic or commercial milk supply, in Calcutta. That would enable a complete control on the movement and maintenance of all animals in and out of Calcutta. Legislation is also in view to prohibit the keeping of milch animals for commercial purposes within the city. This Act, when in force, will have the effect of abolishing the existing stables in the city. Simultaneously, a Milk Colony which would provide accommodation for the milch animals and their owners which will be displaced from Calcutta, is being constructed at Haringhata. The intention is to extend the Act in stages to the different parts of the City as accommodation becomes available at the Milk Colony.

Milk Colony.—The total number of animals which are proposed to be thus resettled at Haringhata is 28,000. Accommodation for 1,272 milch animals, their calves and their owners, has already been constructed in one unit. Three additional units, each with the same capacity are now under construction. When these have been completed, Haringhata will provide accommodation for nearly 5,088 milch animals, at present housed in Calcutta. A scheme for the removal of the remaining 23,000 heads of milch animals, which are sought to be accommodated at the Milk Colony at Haringhata, is now awaiting sanction of the Government of India. This scheme also provides for the establishment of a 3,000 acre fodder farm at Kalyani, which is some 3 miles from the Haringhata Station; the setting up of 3,000 acre dry cows salvage farm at Panagarh, which would house some 12,000 dry cows; and the extension of the existing dairy factory at Haringhata so that it can handle some 6,000 maunds of milk per day which exceeds the quantity Calcutta gets at present.

The estimated cost of this entire project is seven crores of rupees.

The Milk Colony at Haringhata together with the dry cows salvage farm at Panagarh would together provide accommodation for 40,000 heads of milch animals which are housed in Calcutta at present. When the Colony is established, no milch animals, kept for commercial purposes, would be allowed to remain in Calcutta. The city would then get its entire daily requirements of milk from the Milk Colony and from other rural areas. Such milk would be both cheaper and superior in quality to the product sold by private agencies at present. The State Government consider that when the above target is reached, even the milch animals kept for domestic milk supply are likely to disappear from the city. There would then be little need of importing milch animals from the other States to Calcutta. Nor would there be much danger of milch animals, when they go dry, being prematurely sold for slaughter.

CHAPTER V

THE POSITION IN MADRAS CITY

GROWTH OF HUMAN POPULATION

57. Madras City, the third largest in India, covering about 50 square miles, is a place of distances. The congestion in the residential areas, with the exception of that part which was the original city, is not as acute as in Bombay or Calcutta. The congested parts of the city contain over a third of the total population. The cattle and milk problem of the City and the connected problem of slaughter of cattle have, therefore, to be examined and interpreted against this background. The population of the city which remained almost stationary at about 5 lakhs for the first 30 years of this century increased to 6 lakhs in 1931, to 8 lakhs in 1941 and shot up to 14 lakhs in 1951. A small part of this increase is due to the extension of the city limits. Formerly, milk requirements were drawn from the cows maintained within the city and this was sufficient for the then population. World War II and other conditions resulting from growth of population upset this economy and city cattle could no longer feed the population.

The abnormal increase in the decade 1941-51 was due to :—

(*i*) extension of the city limits by about 19 square miles;

(*ii*) immigration of middle and upper class families who normally settle down in their villages attracted by adequate supply of consumer goods in the city, urban amenities like systematic rationing during war and post-war periods and educational facilities;

(*iii*) influx of rural population in search of employment on account of successive failures of monsoon.

About 29 per cent. of this population consist of Muslims, Christians and Harijans, many of whom eat beef. Slaughtered beef is beyond the means of the poorer classes of consumers, some of whom go in for cheaper substitutes like offal.

सत्यमेव जयते

CATTLE POPULATION

58. For an understanding of the slaughter problem in its true perspective, a study of the data of the movement of cattle and trend of cattle population in the city will be helpful. According to Livestock Census of 1951, there were 14,173 milch animals as under excluding privately owned animals :

	In Milk	Not calved	Dry	Total
Cows	4,993	393	1,281	6,667
She-buffaloes	5,632	498	1,376	7,506
Total	10,625	891	2,657	14,173

But the actual number may be taken to be about 16,000 as no accurate statistics are available of privately owned cows and of cows maintained by small retailers. A small margin should also be allowed for suppression of actual numbers owned by professional milkmen to evade licence fees.

Breeds of Cattle kept

59. The most popular breed is the Ongole drawn from the breeding tracts in Nellore and Guntur districts. In recent years, small numbers of Murrah she-buffaloes from the North have been introduced in spite of the heavy prices. Further, crossbred cows with foreign blood have proved their utility as dairy animals and special care is taken of these cows and their female progeny. Local breeds of buffaloes come from Cuddapah. Composition of the stock according to breeds is roughly as follows :—

	Percentage to total
Cows—	
Ongole	50
Cross-bred	24
Local	20
Sindhi	6
She-buffaloes-	
Andhra	69
Local	25
Murrah	6

The cross-bred cows and the *Sindhi* cows are not imported but are bred in the city itself. These represent 30 per cent. of the cow population.

Cattle Market

60. The Tiruvathiyur cattle market near Madras is the chief source of supply of the milch cattle to the city. The table below gives the number of cows and she-buffaloes imported through this market for the six years ending 1953-54.

	Cows	She-buffaloes	Total
1948-49	4,331	8,780	13,111
1949-50	4,416	9,413	13,829
1950-51	4,086	9,093	13,179
1951-52	4,549	8,028	12,577
1952-53	4,092	6,394	10,486
1953-54	5,056	7,139	12,195

Imports and Exports of Cattle

61. Apart from the purchase from the Tiruvathiyur cattle market, some cattle and buffaloes are brought into the city mainly by rail and occasionally in lorries by road. There are no statistics for the number that arrive by road, but figures regarding the movement of cattle by rail for the five years ending 1952-53 are given below along with total figures for imports and exports.

Year	Imports			Exports by rail	Difference
	Through Tiruvathiyur	By rail	Total		
1948-49	13,111	3,362	16,473	503	15,970
1949-50	13,829	1,976	15,805	1,638	14,167
1950-51	13,179	3,021	13,190	174	13,016
1951-52	12,577	2,481	15,051	440	14,611
1952-53	10,486	4,695	15,181	419	14,762
1953-54	12,195	..	..	..	..

Number slaughtered

62. What part of this difference of 13,000 to 15,000 between imports and exports is actually slaughtered is a matter of conjecture. Fairly accurate statistics of slaughter in slaughter houses are maintained. These statistics do not account for such large numbers. There are no figures of import and export by road, but it is known that appreciable numbers are marched by road to breeding areas which are only 100 to 250 miles from the city. For obvious reasons, milch cattle with calves at foot are brought in by rail, which is too costly for transporting dry animals. A part of the difference should be accounted for by this. The point will be examined in the following sections, where figures of salvage and slaughter are dealt with.

Salvage of dry cows

63 (*a*) *Methods of Salvage.*—There are several types of salvage dealing. Some breeders exchange their milch cattle for dry cattle receiving the difference in price in cash. Others buy the dry cattle, outright. But more often breeders undertake to rear the dry cows until recalving for a fee of about Rs. 100—150 per head to be paid on re-delivery. In all these cases an advance of Rs. 15 per head is paid to cover the cost of transport of animals. No compensation is paid if any animal happens to die in the hands of the breeder. Private salvage of this kind is not very popular, because a proportion of the animals is claimed as dead and is not returned. Although there are no exact figures, it is estimated that about 2,500 dry cows per year are being returned annually to the breeding tract by this arrangement. Dry cows, particularly buffaloes are also sent to villages around Madras within about 50 miles and the amount paid is Rs. 5 to Rs. 7 per animal per month.

One notable feature is that high yielding cross-bred cows, when they go dry, are retained by the milkmen and stall fed. But during the last war, due to highcost of cattle feeds, lack of facilities to transport the dry cows to their breeding tracts and, more particularly, due to the attractive prices offered for the beef stock locally, the temptation to sell dry cows for slaughter became great. Government felt the need to save these productive cows and regulated slaughter by enactment of rules under the Defence of India Act. At the same time a farm for the salvage of dry cows in the Madras City was sanctioned in May, 1944.

(b) *Government Salvage Farm.*—The farm located at the Kambakkam Reserve Forest, Chingleput district, has an extent of 1,694 acres. The site is about 54 miles by road from the city and 112 miles from the nearest railway station, Tada. In years of well distributed rainfall, grazing is available for five months in the year and partial grazing for a few months more depending on seasonal rains. About 20 acres of land have been cleared for cultivation of fodders like cholam and maize. Australian drought resistant grass has been introduced. But fodder requirements have to be met mainly by purchase of paddy straw.

The difficulties met with were many in the initial years of working, but were gradually got over, and, during the period 1944-45 to the end of March, 1954, 2,118 cows were taken into the farm and 1,706 returned after calving or late in pregnancy at the request of the owners. According to the price at which feeds were purchased during last year, the average cost of maintenance of a cow towards feeding charges only came to about Rs. 22 per month while only a sum of Rs. 10 is collected as monthly fee per head from the owners concerned.

(c) *Salvage by Milk Union.*—A scheme for the salvage of dry she-buffaloes and cows has also been organized by the Madras Milk Supply Union. Dry animals are collected by the Union and sent to the salvage farm at Vattambedu in Nellore district. The animals are maintained there during the dry period and are returned to the owners when they are about to calve. The farm can take in 200 animals at a time. The boarding fees here are Rs. 8 for indigenous buffaloes Rs. 10 for cows and Rs. 11 for Murrah buffaloes per month.

Rearing of Calves

64. The conditions under which the milch stock is maintained in the city are not conducive to the rearing of calves. The keen demand and the high price obtainable for milk led to neglect of young calves. Once the calves survive up to the age of nine months, they may grow into adults but the majority of them are stunted in growth due to their poor start and are incapable of turning out into good cows or bulls. These go to swell the number of unwanted stock. When it is considered that the cream of the milch stock is drawn to the City from the breeding area, the neglect especially of the heifer calves is an avoidable waste retarding multiplication of the pure breeds. The one exception is the female calves of cross-bred cows. These calves, in spite of all handicaps, are reared and well cared for.

Some, usually a very few, of the yearling female calves of good milch animals in the City, particularly Ongole, are sent by professional cattlemen or rearing till they attain maturity. The fee fixed is Rs. 5 to Rs. 10 per month or a lumpsum payment of about Rs. 200. These animals are returned to the owners after calving.

Subsidy for Calf Rearing

65. A scheme for granting subsidy to owners of calves in the city was introduced in the year 1945-46 in order to encourage better rearing of calves. Any bona fide milkman having not less than 10 heads of milch cows of approved breed was admitted to the scheme. The calves were registered and periodically inspected by the District Veterinary Officer who examined the conditions and decide the eligibility for subsidy. A sum of Rs. 35 was paid for each calf that completed nine months of age and was in good condition, free from any disease or deformity. The scheme worked for seven years. During the period, 5,628 calves were admitted into the scheme out of which 4,619 earned the subsidy. The cost amounted to Rs. 1,61,665. The scheme, which was serving a very useful purpose, had to be closed down by Government in 1952-53 on account of financial stringency.

The salvage of dry cows, as will be seen from the above account, is of several kinds for which it is very difficult to obtain exact and reliable figures. It is, however, clear that a good proportion of the cows, which form the difference between import and export by rail, is actually salvaged and not slaughtered.

Working of Slaughter Houses

66. The slaughter houses are regulated by provisions made in the Madras City Municipalities Act. Slaughter of animals outside the slaughter houses is forbidden and *ante*-and *post-mortem* examination is compulsory. Municipalities have been advised to employ the services of veterinarians, wherever feasible, for the purpose. Weekly returns are prescribed for all slaughter houses.

There are about 100 slaughter houses exclusively for cattle in the State maintained by local bodies inclusive of the one belonging to the Madras Corporation in the city. The slaughter fee per head of cattle ranges from four annas to two rupees.

During the war, the high price paid for good quality beef for army supplies served as an inducement for the slaughter of better types of cattle in Madras, as in other places of the country, and even good Ongole cows in milk were slaughtered. In conformity with other States, Madras was also obliged to restrict the slaughter of cattle under the Defence of India Rules. On the expiry of Defence of India Rules, the restrictions were continued under the Madras Essential Articles, Control and Requisition (Temporary powers) Act, 1946.

STATISTICS OF ANIMALS SLAUGHTERED IN THE CITY

67. The following is the statistics of beef animals slaughtered in the Madras City during the last five years :—

Year	Cows	Bulls and bullocks	Calves	He-buffaloes	She-buffaloes	Total female	Total male	Total male and female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1949-50 .	721	13,156	..	17,660	1,345	2,066	30,816	32,882
1950-51 . .	524	12,963	..	17,840	935	1,459	30,803	32,262
1951-52 . .	618	17,194	..	17,736	812	1,430	34,930	36,360
1952-53 . .	611	17,722	..	13,827	775	1,386	31,549	32,935
1953-54 . .	690	14,465	..	11,659	757	1,447	26,124	27,571

The female stock slaughtered is less than ten per cent. of the total milch stock in the City and generally represents old and sterile cows. About five per cent. of the females slaughtered are local type of milch buffaloes which are un-economical to maintain. The bulk of the slaughter is of male stock and they are almost entirely obtained from outside the city.

Just as the Tiruvathipur Cattle Market is the Chief source of supply of milch animals to the city, the cattle market at Pallavaram supplies the majority of animals for slaughter in the Corporation Slaughter House, supplemented by some from Ranipet. The beef cattle which are not fit either for work or milk production are collected from villages within a radius of 40 miles from Pallavaram, and about 60 to 80 animals per day are going to the Corporation Slaughter House. The Committee visited the Pallavaram Cattle Market and slaughter house. At the market, only poor specimens which had outlived their usefulness were bought by butchers. At the slaughter house, also only very poor class of animals, mostly males, were being slaughtered. There were some buffaloes, however, in good condition. There were also some within the prohibited age group but they were miserable animals both in breed and utility. Some of them had history of prolonged sterility.

A close examination of the total figures for slaughter during successive years reveals a sudden drop by about 5,000 animals during 1953-54. This drop is explainable. Since 1945, the Mysore State has imposed a ban on the slaughter of cattle. The beef required for the market at Bangalore was being supplied from Madras daily. On account of high cost of transport from Madras to Bangalore, a large portion of beef requirements of the Bangalore market is now obtained from other places of the Madras State nearer to the Mysore border. This accounts for the current decrease in the number of cattle slaughtered in the Madras City.

Slaughtering of cattle outside the slaughter house is prohibited under the Madras City Municipalities Act. As sufficient number of cattle are slaughtered inside the slaughter house to meet the full requirements of the public, there is generally no transgression of the provision of the Act, except on a very small scale. Further, exhorbitant price trend for female stock in the Ongole tract also acts as a deterrent to slaughter of dry cattle and as an incentive for salvage.

Number and type of cattle rejected for slaughter

68. Of the number of animals presented, the number disallowed for slaughter is indicated below. The rejected animals consist of some useful dry cattle but also include useless cattle within the forbidden age group.

Year	Cows	Bulls and Bullocks	Buffalo Bullocks	Buffalo cows	Heifers	Total	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1948-49 . . .	981	44	18	462	134	1,639	6%
1949-50 . . .	1,250	62	37	561	219	2,129	7%
1950-51 . . .	896	50	51	464	143	1,604	5%
1951-52 . . .	750	52	54	337	184	1,377	4%
1952-53 . . .	941	70	81	387	203	1,682	5%

This works out to 4 or 5 animals per day. It is reported that some or all of these animals are stealthily slaughtered in hutments behind the slaughter house at night time and secretly disposed of.

Price of Beef Cattle

69. The price realised by owner on sale to butcher is about Rs. 45 for indigenous type of cattle, Rs. 35 for indigenous type of buffaloes (about 350 lbs. live weight) and about Rs. 80 and Rs. 65 for cross-bred cows and buffaloes from city stables (about 800 lbs. live weight). By sale of beef, hide, bone, etc., the butcher realises on an average about Rs. 91 from city cows and Rs. 51 from other cattle.

City Milk Supply

70. Slaughter of cows in cities is directly connected with the city milk supply problem. For a total population of about 14 lakhs of people, the total available supply of milk from all sources is 2·22 lakh lbs. which works out to about 2·5 oz. per head per day. Licensed milk-men in the city contribute 1·14 lakh lbs. which is about 50 per cent. of the total supply. There are about

2,000 of them owning about 12,000 cows between them. About 200 of them own more than ten animals. They keep their animals in the congested parts of the city in insanitary surroundings. Accommodation for calves is woefully lacking. The cows are confined to their sheds, which in many cases have no impervious flooring. They get no exercise except when they are taken up to the customer's residence for milking. There is no arrangement for disposal of dung which is made into fuel cakes.

These milk-men usually prefer to keep cross-bred cows, graded stock or Ongoles, which they try to preserve even when they go dry, taking advantage of the salvage facilities already described above. But they will not hesitate to surrender for slaughter a poor yielder or a local type of cow when dry.

There are, besides, independent retailers who contribute about 70,000 lbs. of milk or about 30 per cent. of the total supply. They are persons owning a few cows within the city or these bringing milk from villages within a distance of 10 to 15 miles on cycles, by trains and other modes of transport.

There is a factory run by Government to meet the deficiency of milk. They utilise skim milk powder which is reconstituted by the addition of water, vegetable fats, carotene or vitamin A. The reconstituted milk is pasteurised, cooled, bottled and sold from several depots in the city at about 2/3rd the price of whole milk . They supply about 6,000 lbs. of milk per day. An Expert Committee set up by the Government of Madras has recently recommended that the factory should be switched over to the production of toned milk as in Bombay.

Madras Co-operative Milk Supply Union

71. Although the Madras Co-operative Milk Supply Union supplies only 32,000 to 40,000 lbs. per day or only about 15 per cent. of the total supply, the distribution plays a vital role. The Union came into being in 1927 or 27 years ago when the human population of the Madras City had stabilised at about 5 lakhs. With the growing population there is a tendency for the development of cattle slums with increased demand for milk as has occurred in Bombay. This tendency was largely arrested in Madras as the Union had agencies to expand its area of operation farther into the villages to meet the need. In this way it prevented the growth of certain classes of milk capitalists.

The Union collects milk from 150 feeder societies spread over an area extending upto 30 miles from the city. The milk collected is pasteurised in the Union's plant at Ayyanapuram and is sent out in sealed cans. The milk is sold at several depots in the city. House to house delivery is arranged, dispensed through sealed cans, on a fee of Rs. 2 per month per customer.

The Union has also helped salvage of dry cattle both directly and indirectly. The Union grants loans to members for the purchase of milch cattle for replacement. The loan is recovered in easy instalments through deduction for payment of milk supplied. The milkmen need not, therefore, sell their dry cows to obtain part of the capital needed for the purchase of replacement stock. The Union also runs, as shown in a previous section, a salvage farm for dry cattle of its members. They also grant loans for the purchase of cattle, fodder and concentrates.

The villages round about Madras were originally converting their surplus milk into ghee. With their coming into the sphere of the activities of the Union, the villages are realising more money from the sale of whole milk and this has encouraged them to take to cattle breeding seriously.

Some of them have started setting aside a part of their land for raising cattle fodder. The animal Husbandry Department have, therefore, found it more helpful to work key village plans in some of these places and this is very much appreciated by the ryots. Mixed farming is thus encouraged, which is the real solution for the cattle problem in the country. In some of these villages, the Union has constructed common milking sheds where the owners readily bring their cows for milking.

The members of the Co-operative Milk Supply Union get facilities for breeding by issue of bulls under the Government distribution and premium schemes on special terms. In this way grading up of cows is encouraged.

Milk Plan for Madras

72. There is no doubt that the proper way to develop the milk supply of Madras is by expansion of the co-operative movement so as to bring within its scope a wider area around Madras with facilities for grading up stock, salvage of dry cows, rearing of calves and development of pasture lands.

The Committee had an opportunity to visit the Vandalur and Goddalur shrub forest areas as well as the forests near about Tirukashikunaram and Mahabalipuram. These forests covering several thousands of acres which are at present serving no useful purpose could advantageously be converted into productive pasture lands for grazing milch cattle, for salvage of dry cows and for rearing of calves. All that is required is to clear the shrubs, raise bunds and establish suitable grasses. The rainfall of the area is well distributed and could support pasture. There are some tanks in the area, by utilising which some quantity of fodder can also be raised. These forests are only about 30 miles from Madras, milk pockets can be established in this area by offering suitable inducement to the villagers around. This should be supplemented by the establishment of milk colonies. As far as Madras is concerned, the size of the milk colony need be limited only to the extent to which sewage farms could supply fodder. At present the entire sewage of the Madras City amounting to 27 million gallons daily is being discharged into the Sea. A scheme has been prepared for the utilization of the sewage at 4 different areas outside the city to bring 2,208 acres under irrigation. On account of the high cost involved, it has been decided that the scheme should be implemented in stages. It is now proposed that the first stage shall be implemented at once. 800 acres of sewage farm is to be developed at Arakagari near which a Milk Colony will be established. It is proposed to start with one thousand cows, eventually working up to 4,000 cows, in stages. The Corporation of Madras is also contemplating to establish a dairy of its own round a Second Sewage Farm near Arampakam. An area of 108 acres is proposed to be brought under fodder cultivation and this will provide fodder for a Colony of about 500 cows; but the Corporation proposes to start with 80 cows, sufficient to meet the requirements of the Institutions administered by them.

Milkmen from the congested areas of the city of Madras, particularly those who own a larger number of cows, could be either induced or compelled to migrate to these colonies. The milkmen owning just a few cows and for whom the income from milk is subsidiary to other vocations, will find it difficult to move out to these colonies. But as has already been explained, if the milk pockets around Madras are developed and concessions are granted to producers in these areas, it will be an inducement for smaller milkmen to move towards these areas.

CHAPTER VI

PROBLEM IN OTHER CITIES

GENERAL

73. The Committee's enquiry was confined in particular to the three large cities of Bombay, Calcutta and Madras. The prevailing conditions in these cities have been described in detail in the preceding three chapters. Apart from these three very large cities, India has 18 towns, the population of which is three lakh or more. The conditions in these generally vary from town to town depending upon the area of the town, its population and whether milk is available from the surrounding rural areas. The problem regarding slaughter of prime cows when they go dry, also varies. But apart from these variations, every Indian town presents some common features. The animals are generally kept under un-hygienic conditions; milk is, therefore, produced under insanitary conditions; legislation regarding quality control of milk is not effectively enforced; and adulteration is fairly common

NUMBER OF CATTLE INVOLVED

74. As was stated in a previous chapter, some four million animals are involved in the supply of milk to the urban areas. Of these, about 1·6 lakh animals are housed in the cities of Bombay, Calcutta and Madras while the rest, numbering some 38·4 lakhs are spread in other cities all over the country. The number in individual cities varies widely from place to place according to the size of the city, dietary habits of people and the level of milk production of the animals.

OTHER CITIES VISITED BY THE COMMITTEE

75. Paucity of time prevented the Committee from visiting other large cities, besides Bombay, Calcutta and Madras. The Committee could, however, study the problem in Delhi, Bangalore and Ahmedabad. Each of these cities has a different set of problems and a different set of conditions under which cattle are kept for milk supplies. Delhi is the Capital of India and is probably the only town where population has trebled itself during the last twenty years.

Ahmedabad, typifies a large industrial city, which is congested, but which is situated in the heart of an important breeding tract, being the home of Kankrej breed of cattle and Mehsana buffaloes. Bangalore, too, is a large city, which is growing rapidly because of industrialisation, but, like Madras, it is far flung out and the problem of congestion is not very serious. An important special feature of this city is that it is situated in the State of Mysore, wherein a complete ban on cattle slaughter was imposed through special legislation about six years back.

CONDITIONS IN DELHI

76. (a) *Human Population.*—The population of Delhi State was 6·36 lakhs in 1931 but rose to 17·44 lakhs in 1951. Delhi State is further peculiar in the sense that most of its area is urban. Out of the total population of 17·44 lakhs in Delhi State, as many as 13 lakh persons or about 70 per cent. live

in the urban areas of Delhi. This abnormal increase in population is, to a large extent, due to the influx of displaced persons following partition of the country in 1947.

(b) *Population of milch cattle.*—Similarly, the milch cattle population has also increased though not to the same extent as the increase in human population. There were 44 thousand milch cattle in Delhi State during 1930 which rose to nearly 75 thousand in 1950, registering an increase of 68 per cent. Thus the rate of increase in cattle population has not kept pace with the increase in human population.

(c) *Special features.*—Further, Delhi is one of the States which has banned the slaughter of cows. For the last several years, no cows have been slaughtered. The demand for beef is, however, met by the slaughter of buffaloes.

There is another special feature to be noticed, namely, that Delhi is situated on the border of the Hariana tract and there is plenty of milk available around it. Though the urban areas of Delhi and New Delhi house 13 thousand cattle, 8,500 of which are in milk, they supply only 20 per cent. of the urban requirements of milk. Out of the total daily consumption of 7,000 maunds of milk in Delhi and New Delhi, only 1,400 maunds are produced locally. A little more than this quantity or 1,600 maunds are imported daily from the other parts of the State. The remaining 4,000 maunds of milk are obtained from the neighbouring areas of Punjab and Uttar Pradesh. A large proportion of this milk comes by road; that coming by rail being only 800 maunds out of a total of 4,000 maunds. The supply by road is mostly on bicycles.

Apart from the above peculiarities, the general conditions of production and distribution of milk are the same as in other urban areas of India. The stables are located in congested localities of Paharganj, Subzimandi, Karol Bagh, Sadar Bazar and Kingsway Camp and they present a public health problem of no mean order. Manure and urine are wasted. Supply of green fodder is inadequate and so are the arrangements for breeding.

(d) *Control of slaughter.*—Although there are four slaughter houses within the area of Delhi Municipal Committee, only one is used for the slaughter of buffaloes while the others are for sheep, goats and pigs. As already pointed out, no cattle are slaughtered. Slaughtering of buffaloes is done under a licence issued by the District Magistrate of Delhi. There is no fee for slaughter but a nominal octroi duty of Re. 1 per animal is charged. There is no restriction on the age of the buffaloes to be slaughtered, but buffaloes in milk, pregnant and diseased buffaloes and buffalo calves below six months of age, are not allowed to be slaughtered. Animals rejected for slaughter are branded with hot iron so that they may not be brought again for slaughter.

The total quota fixed per day for slaughter is 70 to 80 buffalo adults and 30 to 40 buffalo calves. The slaughter is done at night under the supervision of police authorities and a random check is exercised by the Health Officer.

Buffalo flesh is sold through 56 licensed shops in the Delhi Municipal area. All buffalo flesh sold through these shops is stamped by a Meat Stamper appointed by the Municipality. There is no slaughter house or beef shop in New Delhi. A fee of Rs. 12 is charged as license for running a meat shop. The import of beef into the city from outside the State is banned.

(e) *Indian Council of Agricultural Research Milk Scheme.*—The question o improving the milk supply of the city has been receiving the attention of the local Government for a considerable time. As a pilot project, the Indian Council of Agricultural Research started a milk scheme in Delhi in 1951 as a part of the Delhi Village Development Project initiated by the Council. Under this scheme, milk was collected from eight villages round about Bawana in Delhi State, from the Government Cattle Farm at Karnal, the U.P. Government Cattle Farm at Babugarh and from the Co-operative Milk Union, Meerut. A Central Dairy has been set up in the Indian Agricultural Research Institute where supplies from the different sources are received and pasteurised before distribution. Cow milk and mixed milk are separately handled and sold. Cow's milk must contain 4 to 4·5 per cent. fat and buffalo milk 6 per cent. Throughout the entire process of collection and distribution, a complete check on quality is made for which about 200 samples are examined daily. Milk is sold in bulk to hospitals and other institutions. The domestic supplies are made through 50 sales depots located in the different parts of the town.

This scheme has been making steady progress. It started with the supply of 10 maunds of milk and is now handling 180 maunds daily. Progressively, the sale price of milk has also been reduced from Re. 0-12-6 per seer in the hot weather and 11 annas per seer in the cold season to 11 annas and 9 annas respectively. About 15,000 persons are taking advantage of the scheme.

It has now been decided to hand over this scheme to the Delhi Administration for being run separately or for merging with the larger scheme under contemplation.

(f) *Delhi Milk Plan.*—Considerable advance has been made in the preparation of the Delhi State Scheme and it is expected that it would be given effect to at an early date. This scheme consists of starting three Dairy Cattle Colonies in the outskirts of Delhi, each colony accommodating about 2,000 Milch cattle. These colonies will be used for rehabilitating displaced persons and for removing cattle owned by them and kept within the city. Accommodation will also be provided to the owners of cattle in these colonies and milk from them will be collected on a co-operative basis. It is estimated that these 2,000 animals would yield about 250 maunds of milk daily. This milk will be processed in a Central Dairy to be located between Delhi and New Delhi before distribution to the public through depots.

It will be seen that even when fully implemented the present plan will produce only 750 maunds of milk a day, which is not much more than 10 per cent. of the total daily requirements of 7,000 maunds. The immediate target is only 1/30 of the requirements, namely, about 200 maunds. This plan does not, therefore, touch even the fringe of the problem.

In view of the special importance of Delhi, it is essential that the plan should cover a much larger proportion of requirements and be the model that is recommended in this Report. Delhi is not only one of the largest cities in India. It is the Capital of the country and the seat of Central Government. Numerous all-India Conferences and discussions are held in Delhi, for which State Ministers and Senior Officers from States frequently visit the Capital. It is, therefore, incumbent on the Government of India to ensure that the Delhi plan represents the ideal recommended in this Report and that it presents to the various States in the country a model which can be adopted by them.

In order to make it a model centre, Delhi presents very favourable features. Even now 80 per cent. of the milk supply of the town comes from the rural areas situated in breeding tracts, in distinct contrast with cities like Bombay and Calcutta where a preponderantly large part of the milk supplies is produced within the city itself. Secondly, Delhi is situated on the border of one of the best breeding tracts of the country. There is no salvage problem.

The vital defect of the present Delhi scheme is that it does not pay adequate attention to the development of areas which supply 80 per cent. of the requirements of the town. The main recommendation in this report lays down that urban supplies should be replaced by rural production, that the rural areas which supply the milk should be properly developed and that they should be given all the assistance needed in breeding, feeding, disease control and all aspects of animal husbandry so that the production in the areas may be developed to the maximum possible. This aspect of the milk plan does not receive adequate attention in the present scheme. Plenty of milk is available within a radius of 50 miles of Delhi and the problem of long distance transport does not arise. Not only this. If the rural sources are adequately developed and a remunerative market for fluid milk is provided for the adjoining breeding tracts, it will go a long way in remedying the present evil of export of prime milch cattle to the towns.

The Committee, therefore, feels that the Central Government should take active interest in the organisation of the milk supply of Delhi and to render full financial and other assistance.

Conditions in Ahmedabad

77. Ahmedabad houses some 7,500 cows and 6,700 buffaloes within the municipal precincts. The cows usually belong to *Rabaries*, who are nomadic professional breeders. They keep their animals on open sites all over the city. Being breeders, they do not sell away cows when they go dry. With a view to clean up the city of cattle nuisance, the Corporation has constructed stables within the municipal limits whereto milch animals would be removed.

In addition to the milk produced within the city, Ahmedabad derives large quantities from the adjoining rural areas. Milk supply is, therefore, plentiful, although its quality leaves much to be desired.

Since, as stated previously, the milch cows kept within the city are in the hands of breeders, who generally do not sell them when dry, slaughter of useful milch cows is parctically non-existent. But the same is not true of buffaloes. The Committee saw this for themselves during the course of their visit to the slaughter house, when they found that a number of useful buffalo cows and buffalo bullocks were being offered for slaughter.

The number of cattle slaughtered during the last three years at this slaughter house was reported to be as under :—

	1951-52	1952-53	1953-54
Cows	1,335	2,711	4,044
Bullocks	10,149	8,856	7,686
	11,484	11,567	11,730
She-buffaloes	5,614	5,751	5,752
He-buffaloes	178	1,863	3,127
Total	17,276	19,181	20,609

It would appear from these figures that the slaughter of buffaloes was steadily increasing while that of cows and bullocks remained practically steady.

Conditions in Bangalore

78. Bangalore too obtains its supply of milk partly from milch animals kept within the city and partly from the adjoining areas.

The city cattle are of two kinds: (1) Cross-bred, and (2) Indigenous. The former are prized for their much higher milk yield and the Committee were assured that these were not sold for slaughter when dry. The position is, however, different in the case of the indigenous cattle, which are generally poor milkers. The Committee were informed that, even though there was a ban on the slaughter of *all* cattle within the State of Mysore, useful animals of indigenous breeds, including dry cows, were either surreptitiously slaughtered within the city or were taken for slaughter to the State's border, where no such ban existed. The beef of such animals was then brought into the city, where, because of its low price, there was a keen demand for it from a certain section of the population. It was obvious, therefore, that the State's legislation to prohibit the slaughter of all cattle was proving infructuous because of want of similar legislation in the adjoining State.

It also came to the notice of the Committee that while the Government of Mysore had prohibited the slaughter of *all* cattle within their territories, to meet the local demand for beef, they had licensed the import of 200 tons of beef per month into Bangalore from the adjoining State of Madras.

सत्यमेव जयते

CHAPTER VII

CONSIDERATION OF ITEM I IN TERMS OF REFERENCE

DISCUSSIONS AND RECOMMENDATIONS

Item I in Terms of Reference reads as under:—

"*To prevent the killing of milch cows, particularly in the cities of Calcutta and Bombay even when they had gone temporarily dry.*"

SLAUGHTER OF MILCH ANIMALS

79. The problem of slaughter of useful cattle in Calcutta, Bombay and Madras has been presented in detail in the foregoing chapters. The position in some other cities has also been briefly indicated. It is evident that a considerable number of high quality cows and buffaloes is prematurely slaughtered when they go dry. Such animals either become useless as a result of the conditions under which they are maintained, or they are purposely rendered useless, in one way or other, by adopting malpractices, in order to circumvent the law which prohibit the slaughter of useful cattle. The end-result is the same in each case— they are lost to the country. The existing legislation against slaughter is proving, more or less, ineffective in cities, because the legislation is applicable only to a few areas and not to the whole of the country. It can, therefore, be easily circumvented.

DESTRUCTION OF CALVES

80. Besides the premature slaughter of quality cows, there is also the evil of destruction of progeny of most of the cows which are sent to the cities. These calves, being the progeny of selected animals, are potential cows, bulls or bullocks of high quality but they are prematurely lost to the country.

BREEDING AREAS DEPLETED OF BASIC STOCK

81. The existing system of milk supply of Indian cities is thus depleting the country of some of the best milch animals and their progeny. Such drain has been going on for decades at an increasing rate in direct relation to the rate of increase in human population of the urban areas. Partition has aggravated the position considerably. Before the country was partitioned, some of the territories now in Pakistan also supplied a part of the demand for milch animals, but since partition the entire demand has to be met by the breeding tracts left in India. Thus on the one hand the area of supply has dwindled, while on the other, the demand has progressively increased. Naturally, a serious situation has developed in the breeding tracts where milch animals, which constitute the essential basic stock needed for breeding and development, are rapidly becoming scarce. Unless immediate steps are taken to stop such drain effectively, the results would be disastrous.

ROOT CAUSE

82. The problem of prevention of slaughter of useful milch animals in the cities is basically the problem of re-organizing their milk supply. This problem does not exist in the cities of other countries, because timely action

was taken by them to arrange milk supplies from rural areas. In their case, city stables do not exist and consequently no dry cows have to be salvaged from the cities. The milch animals are kept on dairy farms where conditions of their maintenance and milk production are suitable.

Example of Other Countries

83. India should follow the example of these countries, abolish city stables and arrange milk supplies from rural areas, and supplement it, where necessary, by organised colonies. Then only can the problem of prevention of the premature slaughter of useful milch animals and their calves be properly and permanently solved. If this is done, there would be no problem of salvage of dry cows or heavy mortality amongst calves.

In implementing this recommendation, it has to be borne in mind that conditions of animal husbandry in India are different from those in other countries. There are only a few dairy farms. Milk production is scattered in numerous villages where individual cultivators keep only one or two milch animals each. The replacement of city produced milk by rural milk would *inter alia* involve the organization of these small producers and the collection of milk from them.

Remedy

84. For all the aforesaid reasons, the Committee has come to the definite conclusion that the only lasting solution to the problem of slaughter of milch cows and buffaloes is their wholesale removal from the city stables and the replacement of the city-produced milk by milk collected and transported from rural areas, preferably situated in the breeding tracts.

Development of village production and its marketing

85. The development of milk production in rural areas to their maximum capacity and its collection, processing and transport to and distribution in urban areas would need the establishment of a comprehensive organisation. This would *inter alia* involve:—

(*a*) the setting up of a milk collection organization of the numerous primary producers scattered over large areas;

(*b*) the construction of a net work of all-weather motorable roads throughout the areas of collection, to ensure quick transport of milk:

(*c*) the provision of comprehensive and systematic assistance and advice, on the key village pattern, in breeding, feeding, disease control, calf rearing and all other aspects of animal husbandry development;

(*d*) arranging timely collection and transport of milk to a Central Milk Collection Plant or a dairy plant for pre-treatment or pasteurisation of milk and its cold storage;

(*e*) organising a system of proper quality control;

(*f*) provision of common milking sheds for milking of cows under supervision where possible;

(*g*) provision of adequate and suitable facilities for transport of milk by rail where necessary through refrigerated or insulated rail-*cum*-road tankers or vans;

(*h*) building cold stores in the cities for reception of village milk;

(*i*) setting up of a Milk Plant for final processing and bottling; and

(*j*) building up of an efficient marketing service to sell this milk in the cities.

Economic disposal of surplus

86. Efficient arrangements for the manufacture and marketing of suitable dairy products like condensed milk, dried milk, ice cream, *channa*, butter or ghee, as the case may be, should be an integral part of this Milk Plan in order that surplus of milk, arising from seasonal variations in milk production, or elasticity of demand and supply may be disposed of most economically.

Positive Aspect

87. Planned and systematic action on these lines is urgently needed not only for preventing slaughter and eliminating the numerous evils and defects inherent in the existing milk supplies of town but also for the much needed development of the large national wealth lying undeveloped in the breeding tracts of India. The Milk Plan should not, therefore, be conceived from the limited angle of the requirements of town dwellers or as a mere substitute for the existing dis-organized milk supplies. It should equally serve the interests of producers and so of the country at large.

Milk Colonies

88. For many years to come, the large and growing needs of very big cities like Calcutta, Bombay, Madras and, possibly, a few others cannot be fully met by the production of milk in the rural areas accessible to them. For this reason as well as for reasons, like the contingency of a breakdown in the arrangements for long distance transport, it is necessary to set up milk colonies outside certain urban areas to supplement supplies from the villages. The Committee, accordingly, recommend that, to the extent such needs remain unsatisfied by supplies from the rural areas, milch animals, at present housed in the cities, should be removed to and resettled in special colonies.

Smaller towns may not require such colonies because:—

(*a*) it should be possible to meet the smaller requirements of such cities from the surrounding rural areas.

(*b*) the number of milch animals kept in the city being small, it should not be difficult to absorb them, when dislodged from the city, in the nearby rural areas; and

(*c*) the capital cost of establishing a milk colony are generally heavy.

Salvage and Calf Rearing Farm

89. It is essential that each Milk Colony should be a self-contained unit with provision for growing the fodder requirements of the animals housed therein and for suitable accommodation and amenities for the cattle as well as for their owners and attendants. One or more subsidiary farms for the salvage of dry cows and the rearing of calves should also be established and linked with the colonies.

The colony will thus generally consist of two parts; the colony proper which would house animals, when in milk, and the farms for the salvage of dry cows and the rearing of calves. The Committee feel that colony part of

the scheme should be run in such a way as to be financially self-supporting, but, in the case of the other part, a certain amount of subsidy would be needed to encourage the salvage of dry cows and the rearing of calves.

Machinery for Implementing Milk Plan

90. The Governments of Bombay and West Bengal have already created suitable organisations to deal with the problems met within the cities of Bombay and Calcutta. In other States also, an appropriate machinery, to suit the needs and circumstances of each case, should be set up immediately for implementing the recommendations detailed in the preceding paragraphs. This machinery should initially be handled by a senior suitably trained officer specially appointed for the purpose. When work has sufficiently developed, the organization may be handed over to a suitable body like an autonomous Milk Board.

First Stage of Plan

91. As future progress would depend upon initial success, it is essential that the scheme is taken up in cities which offer the maximum chance of success. Work should be planned to completely re-organise the Milk supply of at least one or two selected cities in each State during the next five years.

Quality Control

92. In order to facilitate quality control and to ensure supply of pure milk to a large city by one or a few organized agencies, the Committee consider that legislation, where necessary, should be enacted to enforce compulsory pasteurisation of all milk distributed in the city.

Machinery in Central Government

93. The carrying out of such developmental schemes for milk supply in large cities will need considerable technical assistance and guidance from Central Government, particularly in the case of States which do not possess experienced technical staff. The Central Government should, therefore, create a suitable machinery in the Ministry of Food and Agriculture to help the States in formulating and implementing the requisite plans prepared for their benefit. In special circumstances, where a State Government finds itself unable to handle a large milk plan, the Government of India should work the scheme in collaboration with the State Government concerned.

Interim Measures

94. The full implementation of the plan, outlined in foregoing paragraphs 83—92, will obviously take a number of years. To check the slaughter of useful cattle till the problem can be solved in a permanent manner, the following interim measures should be adopted simultaneously;

(*a*) The stables and cattle in the cities must be licensed and movement of cattle in or out allowed only under a permit. The aim should be to prevent any increase in the existing number. Licensing would prevent the mysterious disappearance of useful cattle and thereby make it possible to exercise a more thorough check on illicit slaughter. Permits for the import of milch animals into a city should be strictly restricted and allowed only on the basis of animlas which die, or are salvaged, or, being unfit or useless, are disposed of under a certificate.

(*b*) Adequate breeding facilities through artificial or natural breeding should be made available free of cost to ensure timely impregnation of the animals. This would encourage salvage of dry cows.

(*c*) The State Government should set up salvage farms for the maintenance of dry milch animals where other suitable facilities do not exist for the maintenance of such animals. These farms should provide accommodation for about 30 per cent. of the number of milch animals housed within a city. To minimise cost of maintenance, the farms should have adequate grazing areas or facilities like irrigation to raise fodder crops at as low a cost as possible. Further, to induce milkmen to salvage their milch animals, when they go dry, only a part of the total cost of feed and maintenance must be charged to them, the rest being treated as a subsidy.

(*d*) Obviously, the salvage of useless animals would not be economical. Salvage should, therefore, be undertaken of only useful animals, namely, good milkers preferably those in-calf.

(*e*) To keep down expenditure on the establishment of salvage farms to the very minimum, use must be made of the existing *goshalas* and *pinjrapoles* as far as possible. Where and to the extent necessary, funds should be provided to these institutions to enable them to undertake salvage work.

(*f*) The Committee are informed that the existing method of assessment of income-tax in case of milkmen is hampering salvage of dry animals, because in making the assessment, the original value paid for a fresh cow is charged instead of her depreciated value when she is dry. The only means open to milkmen to avoid inflation of their assets and the resulting additional tax is to sell off their dry animals as permanently useless. If income tax authorities recognise depreciation on milch animals, it would encourage salvage of dry animals.

(*g*) The 50 per cent. concession in railway freight allowed on the export of dry animals and calves from the cities of Bombay, Calcutta and Madras has produced encouraging results. The Committee recommend a further reduction in railway freight to 25 per cent. of the normal for the outward journey as that would further encourage the return of dry animals and their calves to their original homes. The breeding tracts would thus regain some of the animals sent out.

This concession should be extended to all cities and not restricted to Bombay, Calcutta and Madras as at present.

(*h*) Salvage farms for dry cows should also be set up in the exporting tracts by the State Governments concerned. To raise funds required for running such farms, an export fee of Rs. 20 may be levied on every animal despatched by rail from the breeding areas. The proceeds of this levy should be constituted into a Cattle Improvement Fund and utilised for salvage operations and for subsidising the retention of basic stock in the breeding tracts. To implement the recommendation, the State Governments concerned should set up a suitable organization for purchasing dry cows and buffaloes from cities for transporting them to the breeding tracts and for disposing them of to breeders in those tracts.

Finally it is of the utmost importance that—

(*i*) The legislation against slaughter of useful cattle is made fully effective.

(*ii*) Such legislation should be made applicable to the *entire State* and not only to a part of it.

(*iii*) The operations at the slaughter houses should be efficiently supervised.

(*iv*) Veterinary and Police staff at the slaughter houses should be strengthened.

(*v*) Sale of contraband beef should be stopped by rigorous enforcement of the existing legislation and by enactment of fresh legislation where it does not exist.

(*vi*) No restriction need be placed on the slaughter of male buffalo calves.

FINANCIAL ASSISTANCE BY CENTRAL GOVERNMENT

Wider Implications of Recommendations

95. Though the recommendations made in this report mostly centre round the prevention of premature slaughter of dry milch animals arising out of the unnatural conditions of their maintenance in city stables, the actual implications of the recommendations go much farther and cover a good portion of the field of development of cattle and dairy industries of India. Action on them will automatically result in the exploitation of the large national wealth now lying dormant or undeveloped in the millions of India's cattle population.

The central theme of the recommendations is the milch animals should be removed from cities and milk supplies should be met out of production in rural areas located, preferably, in breeding tracts, the potentialities of which should be fully developed. This development is to be achieved through the encouragement resulting from the remunerative market for fluid milk in cities and through the provision of facilities for breeding, fodder production, disease control and other measures of improvement indicated in the recommendations.

About four million cows and she-buffaloes will be needed for meeting the full urban requirements of milk. The schemes for urban milk supply will, therefore, result in the immediate improvement of these four millions directly, and, a much larger number indirectly elsewhere through the use of the superior breeding material that would become available on account of the systematic intensive work done in these breeding tracts.

Apart from improving the standard of health, the increased production of milk and the additional income arising therefrom will go a long way in raising the standard of living of two to three million families who own the four million animals. The schemes will also provide employment to a large number of persons, both technical and non-technical. Large tracts of the country will be opened up, and unlike other industries, the increased wealth will not be concentrated in a few hands but will be spread out evenly among numerous persons. It is difficult to conceive of any other scheme which will promote the growth of a socialistic pattern of society more effectively than this one.

National Problem

96. It is, therefore, felt by the Committee that the Central and State Governments should view the recommendations as a whole and look upon them as a large scale national effort designed for developing a hitherto untapped source of weatlh and for promoting the social and economic well-being of large sections of the populations. The Central Government should, accordingly, take a large measure of initiative in starting and developing the projects in different States and should provide for full co-ordination, guidance, technical advice and finanical assistance. They will have to play a more active part when Inter-State movement of milk is concerned, as, for example, in Delhi, a good portion of whose requirements is collected from rural areas in U.P. and the Punjab. It is difficult for the Delhi Administration to introduce essential measures of cattle improvement in the villages of other States. But that is a vital part of the scheme without which production will not be increased.

Nature of Assistance Required

97. Generally, the schemes for the collection of milk and its supply to cities will be financially self-supporting. But parts of the whole plan require heavy initial outlay, for which financial assistance will be needed by the States in the shape of grants or loans. Items which require financial assistance are, particularly, purchase and installation of dairy machinery and equipment including pasteurisers and milk drying and condensing plants; provision of insulated or refrigerated vans or railway wagons; construction of cold stores establishment of milk colonies, salvage farms and calf rearing farms; subsidies for salvage and so on.

सत्यमेव जयते

CHAPTER VIII

CONSIDERATION OF ITEM II IN TERMS OF REFERENCE

"To make the present law on the subject more effective so as to put an end to such evil practices as Phooka".

PHOOKA

98. It has already been brought out in the preceding chapters that in most cases, calves of the milch animals kept in the city stables are starved to death. Indian cows, with few exceptions, do not 'let down' milk if an attempt is made to milk them without their calves. Buffaloes are comparatively more tractable in this respect and it is relatively easier to milk them without their calves. Nevertheless, there are obstinate animals amongst them as well.

Cow, yielding milk soon go dry, if they are not milked. When the calf dies, the milk producer has, therefore, generally to make a choice between letting his animal go dry or to milk her in whatever manner she might 'let down'. For economic reasons, he naturally chooses the latter course. At first he tries all the means to cajole her to 'let down'. For instance, he feeds her very liberally at the time of milking. He even stuffs straw into the hide of the dead calf to make it look, as far as possible, like her own calf and places it before the cow at the time of milking her. Many animals are thus induced to 'let down' milk and it is a common sight in Calcutta and some other large Indian cities to see a milkman carrying one or more such dummy calves, when he is driving his cows through the streets to milk them at the residence(s) of his customers. But many other animals cannot be thus duped. The maternal instinct in them is too strong to milk without the calf. Exasperated, the milkmen take recourse to all kinds of cruel methods to draw milk from them. They beat them, but when even that proves to be of no avail, they adopt the cruel and pernicious practice of "*phooka*" or "*doom dev*".

"DOOM DEV"

99. "Phooka", as the name implies, is the blowing of air in the uregenital tract of the cow by mouth or through a bamboo tube. "Doom Dev", on the other hand, is the insertion of the switch of the tail in the uregenital tract of the animal. While "Phooka" is practised in the case of cows, "Doom Dev" is adopted to milk buffaloes. In either case, the animal often lets down milk even though the practice causes it great discomfort. "Phooka" or "Doom Dev" thus becomes a substitute for sucking by the calf at each milking.

LEGISLATION ON "PHOOKA" AND "DOOM DEV"

100. As both these practices are very cruel, special legislation for their prevention was enacted by an amendment of the Prevention of Cruelty to Animals Act, 1890. Section IV of the amended Act reads as follows:—

> "*Penalty for practising Phooka.*—(*i*) If any person performs upon any cow or other milch animal the operation called "Phooka" or "Doom Dev", or permits such operation to be performed upon any such animal in his possession or under his control, he shall be punished with the fine which may extend to five hundred rupees, or with

imprisonment for a term which may extend to two years, or with both, and the animal on which the operation was performed shall be forfeited to Government.

Provided that in the case of a second or subsequent conviction of a person under this section he shall be punished with fine which may extend to five hundred rupees and with imprisonment for a term which may extend to two years.

(*ii*) A court may order payment out of any fine imposed under this section of an amount not exceeding one tenth of the fine to any person other than a police officer or officer of a society or institution concerned with the prevention of cruelty to animals who has given information leading to the conviction."

The Committee examined the question of prevalence of these cruel practices in the different cities which they visited. They were informed that, except in Calcutta, little or no 'phooka' was practised. In Calcutta, however, the practice was reported to be common amongst the professional milk producers but " Doom Dev" was not practised on any large scale. The Committee were given to understand that these practices were also in vogue in some cities in the Punjab.

Enforcement of Legislation

101. The Committee also examined the question of prosecution launched under the 'Phooka' Act in the city in Calcutta, where the Society for the Prevention of Cruelty to Animals have engaged special 'Anti-phooka' staff to implement this Act. They were informed that not more than one or two prosecution were made annually. This would show that even with a special staff, the Act is proving to be of no avail.

It is not difficult to see why the Act remains a dead letter. 'Phooka is resorted to on economic grounds, namely, to prevent a cow from going dry when her calf has been starved to death. Unless the root cause is removed the practice is bound to continue. The real remedy is, therefore, to maintain milch cows under conditions where their calves can be reared and are not destroyed. This can only be achieved by prohibiting the maintenance of milch cows within the cities and by organising and developing rural areas as the source of supply of the required quantity of milk.

As it would take some time to remove the milch animals from the cities, it is necessary to consider how the evil may be mitigated in the interim period. In fact, according to their terms of reference, the Committee were asked to suggest as to how the present law on the subject could be made more effective so as to put an end to such evil practices as "phooka".

A reference to the existing law would show that the punishment provided under it is already very drastic. Both the owner of the animal and the person committing the operation, if he himself is not the owner, are liable to be prosecuted under the law. For the first offence, the offenders can be fined upto five hundred rupees, or imprisoned for a term which might extend to two years, or both fined and imprisoned, and the animal is confiscated. For a second or subsequent offence, both fine and imprisonment are obligatory. Want of deterrent punishment is not, therefore, the cause of continuance of this evil. The real trouble is that the available law is not being effectively enforced.

Need of Public Co-operation

102. Public co-operation is needed to bring the offenders to book. The existing law provides for the grant of cash rewards to informants, if the information given by them leads to the conviction of the offender(s). The absence of any convictions, on the basis of such information, shows that public co-operation is altogether wanting. As stated previously, "phooka" is reported to be common in the numerous stables scattered all over Calcutta. Public cannot, therefore, be unaware of this malpractice. But they appear to be absolutely unconcerned. The existing legislation therefore remains a dead letter. The only way to bring about an improvement is to create a strong public opinion.

Enhancement of Reward

103. The committee feel that in addition to creating public opinion, the only step that can be taken to make the enforcement of existing legislation more effective is to make the rewards to the informants more attractive. Under the existing provisions, "a court may order payment out of any fine imposed..... amount not exceeding one-tenth of the fine". The Committee suggest that if the courts award the maximum punishment permissible under the law, and the rate of reward is enhanced to say one-half or at least one-fourth of the fine, there may be an improvement. They further suggest that in addition to the punishments provided in the existing law, the licence to keep milch animals should also be cancelled in case of the offenders.

Other Cruelties

104. Cruelties of many other kinds are also inflicted on milch animals. To circumvent the law, which prohibits the slaughter of useful animals, maiming, breaking of bones and teeth, induction of mastitis, starvation and over-driving to make the animal look lean and emaciated etc. are practised deliberately. By these practices the animals are made to look unfit for breeding or for milk production so that they might be passed for slaughter even though they may be less than 14 years of age.

The Committee understand that the Government of India have appointed another Committee to deal specifically with the question of Prevention of Cruelty to Animals. It is presumed that this Committee would deal with this subject more exhaustively

CHAPTER IX

CONSIDERATION OF ITEM III IN TERMS OF REFERENCE

"To explore the possibility of making milk powder in suitable centres"

105. The proposed manufacture of milk powder, arises directly out of the first item in the terms of reference, namely, "to prevent the killing of milch cows, particularly in the cities of Bombay and Calcutta, even when they had gone temporarily dry", in as much as it has been suggested from time to time that since there is a very heavy drain on the cattle wealth of the country because of the premature slaughter of milch animals, when they go dry, in the cities of Bombay, Calcutta and other large cities, the breeding areas, which supply such milch animals, might manufacture and export milk powder instead of milch animals. This suggestion implies that the people of these cities would have to consume, by and large, milk reconstituted from milk powder instead of fresh milk.

106. While the suggestion seems to be plausible, the Committee feel it is not practicable for the following reasons:—

Firstly, Indians, in general, have a strong prejudice against the use of milk powder. Every one prefers fresh milk, if it is available at raesonable rates. This is borne out by the experience gained through the sale of 'toned' milk in Bombay and Calcutta. 'Toned' milk is buffalo milk, which is prepared by mixing fresh buffalo milk with skimmed milk reconstituted from skim milk powder. The proportion in which the two products are mixed would naturally depend upon the fat content of buffalo milk, which is used for toning, and the desired fat content of 'toned' milk. In Calcutta, where 'toned' milk contains 4 per cent. fat, the proportion in which buffalo milk is mixed with skimmed milk is roughly 40:30. In Bombay, where 'toned' milk is prepared to contain 3 per cent. fat, the proportion is 30:40. In either case 'toned' milk contains 9 per cent. solids-not-fat. It is a perfectly wholesome product, generally superior in composition and nutritive value to the adulterated milk sold by the milkmen. It is also offered at a much lower price. Yet, in spite of these advantages, it is not very popular.

HIGH COST OF MILK POWDER

107. Secondly, because of the additional cost involved in the manufacture, canning and transporting of milk powder from the breeding areas to the large urban consuming centres, reconstituted milk would certainly not be cheap. For instance, it has been estimated that the cost of manufacture of a pound of milk powder, containing 30 per cent. fat, would come to Rs.2/5/- if fresh milk is available at three annas a pound. As one part of such milk powder will give 7·5 parts of reconstituted milk containing 4 per cent. fat, the price per pound of such milk would come to about annas five. The Committee consider that reconstituted milk, offered at this price, is not likely to be acceptable. At a lower price, there might be some demand. But a reduction in the price of reconstituted milk must mean a corresponding reduction in the price of milk powder and of milk used in the manufacture of milk powder. Whether large scale production of milk can be engendered if it is to be marketed at less than three annas a pound even in the breeding areas, is very doubtful.

Difficulties of Manufacture

108. Thirdly, the task of manufacturing the large quantity of milk powder, which would be required to supplement the existing system of milk supply in the large consuming centres, would raise financial, technological and organisational problems, which would not be easy of solution. For instance, Calcutta derives approximately 4,500 maunds of milk daily from the milch animals which are kept in the city stables. The milk powder equivalent of this quantity is 600 maunds. As manufacturing capacity of an average milk powder factory is about three tons daily, some seven or eight such factories would need to be set up to serve the needs of Calcutta. Assuming that the daily milk requirements of Bombay are equal to those of Calcutta, another eight factories would have to be established to supply the needs of that city as well.

Imports of Milk Powder

109. The imports of whole milk powder and skim milk powder in India during the last four years are given below:—

Year	Whole milk powder		Skim milk powder	
	Quantity in cwts.	Value in Rs.	Quantity in cwts.	Value in Rs.
1950-51 . . .	33,811	64,67,494	1,30,407	85,96,666
1951-52 . . .	21,086	33,85,332	2,33,974	1,87,50,472
1952-53 . . .	8,386	18,11,921	1,88,079	2,02,65,811
1953-54 . . .	25,275	39,70,313	3,50,739	2,84,86,826

Although the imports vary considerably from year to year, the average annual figures are 1,107 tons of whole milk powder and 11,290 tons of skim milk powder. To produce these quantities, another 11 or 12 factories would need to be set up. Thus to supply the existing demand for imports of dried milk, and to meet the requirements of Calcutta and Bombay alone, would need the establishment of 8+8+28 or 44 factories. The capital cost of setting up one such factory is estimated at Rs. 14 lakhs. The total capital required for all the 28 factories could these be established, would thus be Rs. 392 lakhs. This is not a large sum to invest but the country must first have some experience in the 'know how' of running commercial milk drying plants with village produced milk particularly from buffaloes.

Quality of Village Milk

110. Further, a milk drying plant, handling 3 tons of dried milk, would need a daily supply of 600 maunds of milk. Such milk must be produced and collected under hygienic conditions and must reach the plant within two to three hours of its production. Milk produced under insanitary conditions of production and/or handling, would not be suitable. Village produced milk is often highly contaminated with bacteria, and because of the high atmospheric temperature, these bacteria multiply rapidly. The means of communication in the countryside are generally poor, making quick transport particularly during the rainy season, a very difficult task. There are very few 'milk pockets' that produce 600 maunds of milk daily, throughout the year, to reach the milk drying plant within two to three hours of production. To organise a milk powder industry under these conditions is, therefore, bound to be difficult.

Further (foreign) technical knowledge regarding the manufacture of milk powder, as is available at present is only in respect of cow milk. In India on the other hand, buffalo milk, because of its relative abundance would have to be used, and new techniques might, therefore, have to be developed. This is bound to take time.

Milk Powder cannot replace Fluid Milk Supplies

111. For the foregoing reasons the Committee are of the opinion that it is not feasible to replace the existing system of milk supply, as is obtaining in Bombay, Calcutta and other large cities, by the alternative system under which milch animals, which are at present exported to these cities, would be kept in the breeding areas, the milk produced by such animals being converted into milk powder for supply to the cities.

Scope for Developing Milk drying Industry

112. Nevertheless, the above should not mean that there is no need or scope for developing milk drying industry at suitable places in India. It is important to do that not merely to find a better market for the surplus milk which is available in some "milk pockets", but also for sound economic and stratagic reasons. In many "milk pockets", the available supply of surplus milk is disposed of as ghee, which brings to the primary producer a much lower return than if milk was sold for manufacture into milk powder. India imports milk powder, whole and skim, worth rupee three crores annually on an average. National economy demands that these imports should be discontinued as soon as possible. Milk powder would also be required for our armed forces in a national emergency when imports from overseas might be completely cut off. It is essential, therefore, to arrange for the quantity required for this purpose being manufactured within the country. The milk powder industry from this stand point is of national importance.

Supply of Sterilised Milk

113. People in India consume milk generally after boiling it. For this reason sterilised milk, which has the flavour of boiled milk, should be quite popular. Morever, sterilised milk has excellent keeping qualities. In the original packing, it can keep almost indefinitely at the ordinary temperature. For this reason, it can be transported over long distances and its use in preference to pasteurised milk is growing rapidly in some industrial areas of the United Kingdom. The Committee consider that there is definite need to investigate the feasibility of export of sterilised milk from some suitable milk pockets in the breeding tracts to Calcutta and Bombay.

Surveys to be Carried Out

114. During the time, at its disposal, the Committee could not prospect the different areas which offer adequate scope for the establishment of one or more milk drying plants in different parts of the country. Several milk pockets, such as Anand in Bombay, Nilgiris in Madras, Karnal and Jullundur in Punjab, Sangrur in PEPSU, Aligarh in U.P., and Guntur in Andhra and Darjeeling in West Bengal were suggested to the Committee for this purpose. The Kaira District Co-operative Milk Producers Union has already launched upon a scheme to set up a new dairy factory, which, besides other products, would manufacture milk powder, as a means of disposing of surplus milk during the flush period. The Committee recommend that detailed survey should be carried out in likely milk pockets some of which are named above,

with a view to examine the scope of setting up one or more milk drying plants in each of them. By the time this information can be gathered, valuable technological experience is likely to be available from the Anand factory. It should then be possible to set up additional factories in other areas which are found suitable for this purpose.

Recommendations

115. The Committee feel that there are suitable areas in the country which can be developed for providing sufficient milk for conversion into either milk powder or condensed milk on a small factory scale which can be transported to distant areas. The amount of milk available is, however, not sufficient to meet the entire demands of fluid milk for cities like Bombay and Calcutta and it will not be possible to replace the export of milk animals from breeding areas by the export of milk powder from these territories.

Although production of milk powder in certain areas will not, therefore, affect immediately the position of milch cattle import into cities like Bombay and Calcutta, the Committee feel strongly that production of milk powder and condensed milk should be undertaken as early as possible so as to make the country independent of foreign import as also to utilise fully the seasonal surplus in certain areas.

In the absence of detailed information necessary to decide on the suitability of areas for the establishment of a milk drying plant, the Committee are not in a position to indicate any particular place or places where such factories should be established. They recommend, therefore, that systematic surveys should be carried out of areas considered to be potentially suitable.

Due to the lack of sufficient knowledge regarding condensing and drying of milk of Indian cows and buffaloes, the Committee further recommend that immediate pilot investigations and research work should be undertaken both with cow and buffalo milk so that actual data in regard to the type and pretreatment of the raw material, capacity of the plant required, method of packing, keeping quality of the products and the economies of production are available before factories are actually set up. Valuable experience is also likely to be gained from the working of the new Dairy Factory at Anand where there is a proposal to make some milk powder.

The Committee also consider that technological, organisational and economic problems involved in the long distance transport and marketing of sterilised milk in the cities of Bombay and Calcutta should be investigated as early as possible.

Chapter X

CONSIDERATION OF ITEM IV IN TERMS OF REFERENCE

"To impose some effective control on the Inter-State movement of Cattle"

General—Movements of Cattle

116. The problem of Inter-State movement of cattle covers a much wider field than that of milch animals alone, both with regard to the kinds and numbers involved and the areas concerned.

According to the Surveys carried out by the Directorate of Agricultural Marketing, about a million cattle move annually in different directions from one State to the other. Of these, only a relatively small number are milch animals. The rest, constituting by far the bulk of the total number, are working bullocks and young stock. These latter move from the breeding tracts, which raise good cattle, to the non-breeding areas, which are deficit and where the local animals are comparatively of inferior quality. Thus, large numbers of bullocks required for cultivation, carting, irrigation and other purposes move from the breeding areas of Punjab, Pepsu, Rajasthan, Saurashtra, Bombay, Madras and Mysore to other parts of the country in the same or other States.

Surplus cattle are also moved to city slaughter houses from one state to another for meeting the demand for beef. Such animals are generally old and useless. Before partition, the N.W.F.P, the Western districts of U.P. and East Bengal were important markets for such cattle, which kept the problem of useless cattle in check to a considerable extent. Even now, large scale movement of such cattle continues from one state to another. Further, cattle owners from certain parts of the country often take their animals from place to place in search of fodder, and during times of famine, such movement is quite considerable.

The Committee feel that, in the context of the terms of reference, they have to deal only with Inter-State movement of milch cattle from breeding areas to a large cities, and not with the wider aspect of the movement of all cattle.

Movement of Milch Animals

117. The urban areas have always depended on the breeding tracts for the milch animals needed by them to meet their milk requirements. As indicated before, the exodus from the breeding tracts, grew with the growth of cities and the consequent increase in the demand for milk.

Before partition, Sind and the areas now constituting West Punjab, were important sources of milch cows and buffaloes. Sindhi and Tharparkar cows and Murrah buffaloes were supplied by Sindh, and Sahiwal cows and Nili buffaloes by West Punjab. With the partition of India, these sources have been cut off and the entire burden has fallen on the breeding tracts now in India.

In the absence of Sahiwal, Sindhi and Tharparkar cows, the demand for Hariana breed has increased. This has to be largely met from the Hariana tract. As has already been pointed out in Chapter VII, because of the increased demand on the one hand, and shrinkage of the area of supply on the other, this tract is being rapidly dried up.

The Hariana tract is also the home of Murrah breed of buffaloes, which are so much in demand in Bombay, Calcutta and other cities. Now that buffaloes of Murrah and Nili breeds are not available from West Pakistan, again the Hariana tract has to meet the demand.

Cows are also supplied by certain areas in the U.P. and Bihar to Calcutta; while Bombay obtains Mehsana and Surti Buffaloes from the Mehsana area and Gujerat. According to the information of the Committee, the large scale export of buffaloes from Mehsana is seriously depleting that area as well.

Besides the cross bred animals, which are locally bred, cows of Ongole breed and buffaloes of local type are kept for milk supply in Madras. The Ongole animals are obtained from the Ongole tract in Andhra.

Conditions in the Hariana Tract

118. The town of Rohtak, which is situated in the Hariana tract, is, perhaps, the most important market for Hariana cows and Murrah buffaloes in India. Rohtak animals, because of their superior quality, are in great demand in Bombay and Calcutta. Animals booked from Rohtak are, in fact, sold at a premium as compared with the animals booked from other stations in the Punjab, Pepsu, or Western U.P. to Calcutta and Bombay. So great is the popularity of, or preference for, milch animals from Rohtak that dealers from other parts of Punjab and Pepsu, in some cases, send their animals first to Rohtak, from where they are re-booked to other parts of India as "Rohtak" animals.

Thousands of milch cows and buffaloes are, therefore, despatched by rail each month from Rohtak to Bombay, Calcutta, Cawnpore, Lucknow and other large cities. The city possesses a number of "addas", where milch animals brought from the surrounding breeding areas and other parts of Pepsu and Punjab change hands by the hundred each day.

To study the problem on the spot, therefore, the Committee paid a visit to Rohtak and surrounding villages, where they met knowledgeable persons representing both the breeders of and the dealers in milch cows and buffaloes. They could thus discuss the problem with the representatives of both the interests involved. The Committee had previously paid a visit to Patiala, where they had a similar opportunity to study the conditions in that part of Pepsu, which too, is an important exporting tract.

Some of the members of the Committee had intimate knowledge and experience of the conditions in the Hariana tract for the past 25 years. They were therefore, in a position to compare the quality of the existing animals with what they had seen 20—25 years ago.

The Committee also examined the Live-stock census figures, which shows that there has been no decrease in the total number of cattle and buffaloes in the Hariana tract during the past 20—30 years, in spite of the fodder famines which are not infrequent in this area. It was evident that large scale export of milch animals had not at least depleted the total numbers.

However, the position was not the same in respect of quality of the existing stock compared with that of animals available two or three decades ago. The unanimous view was that high yielding cows had already become very scarce and that the position in this respect was deteriorating rapidly. The view was less unanimous in respect of buffaloes. But even in this case it was generally agreed that high yielding animals had become scarce although not to the same extent as the cows.

Depletion of Hariana Tract

119. Undoubtedly the Rohtak area is heavily depleted of high yielding Hariana cows, but the cause of the depletion is not solely the drain resulting from the urban demand. It is partly due to the larger emphasis on work quality (as opposed to milk) in the selection of breeding stock by the farmers. For years, Rohtak has been the main supplier of work bullocks to neighbouring areas and the demand has been quite appreciable. Naturally the breeder caters to this market and produces the articles for which there is keen demand. In selecting the basic breeding stock therefore, he has his eye more on qualities which will produce a good bullock than on these which will produce good milker. The number of high yielding cows produced was accordingly small and the recent heavy demand at temptingly high prices has led to the removal of even high quality basic stock from the area.

Ban on Export Undesirable

120. The breeders and the dealers in Punjab were all unanimous that imposition of a ban on the export of cows and buffaloes from that State would be against the best interests of all concerned. The breeders, if deprived of a lucrative market, would have no incentive to breed good stock; the dealers would become unemployed; while the milk supply of the cities would be completely disorganised. The Committee entirely agree with this view.

It is axiomatic that a remunerative market for its products is vital to the development of any industry. Cattle industry is no exception. The breeders should have a market either for cattle or for milk. Implementation of the recommendations in Chapter VII, which envisages the creation of a market for fluid milk and the introduction of measures of cattle improvement, will automatically solve the problem in the most natural way, and obviate the need for artificial props, like bans, to sustain the industry.

Interim Measures to Arrest Depletion

121. The full implementation of the recommendation will take time. In the meanwhile steps should be taken to encourage the retention of basic breeding stock in the exporting areas. As Punjab and Pepsu are, by and large, the most important exporting areas, maximum effort must be made in these States. Work should proceed along four lines :—

(a) *Registration.*—Firstly, to start with, the best 1,000 Hariana cows and an equivalent number of the best Murrah buffaloes available should be selected and registered and they should not be permitted to go out of the tract. A good plan of ensuring the latter would be to give a suitable annual subsidy to the owners of such animals on the condition that the animals would be retained for breeding and not sold away. The Committee gave considerable

thought to the quantum of subsidy which would prove effective. They also discussed the matter with some of the breeders concerned. The concensus of view, with which the Committee agree, was that the annual subsidy, to be effective, must not be less than Rs. 200 per animal. For 2,000 milch animals, at this rate of annual subsidy, the total expenditure would amount to four lakhs of rupees annually. An export levy of Rs. 20 per animal should be imposed on each animal exported by rail from the breeding tracts. Taking the number of milch cows and buffaloes exported annually from the breeding tract to be a lakh, the total proceeds of such a levy would aggregate to Rs. 20 lakhs. Rupees four lakhs required for subsidising the retention of the best animals in the foregoing manner should be the first charge on this amount, the remaining amount, after deducting the collection and establishment charges, being used for financing the work of salvage of dry cows.

(b) *Retention of younger animals.*—Secondly, to ensure that milch animals exported from the breeding tracts leave behind some of their progeny, export of young animals should be prohibited. Animals must have calved at least twice before they are allowed to be sold from the tract. Good cows and buffaloes normally calve for the first time when they have cut four permanent teeth. By the time they calve again they become "full mouthed". The export should, therefore, be restricted to full mouthed animals. Special legislation might be necessary to enforce this practice.

(c) *Salvage.*—Thirdly, as was detailed in paragraph 94, an organisation to purchase dry cows and buffaloes from the cities, particularly from Bombay and Calcutta to transport such animals to the Hariana tract, and to sell them to the cultivators in that tract should be set up. The State Government should also set up salvage farms to maintain these dry animals, until they are sold.

(d) *Market for fluid Milk.*—Fourthly, steps should be taken to develop a remunerative market for the milk produced by the animals kept in the breeding tracts. At present, for want of such a market the breeder is interested more in the sale of his animals than in their produce. This position, which is very different from that obtaining in other countries, where milk production is the primary industry and only surplus stock are sold, must be reversed.

Hardships of Transport

122. Mention has previously been made of the hardships which milch animals and dealers have to undergo in transporting milch animals by rail from the breeding tracts to the cities. At present these hardships remain unventilated, as there is no suitable agency to bring these to the notice of the Railway authorities. To remove this lacuna, and advise Railways in matters relating to the transport of milch animals, milk and milk products the Committee suggest that the Milk Commissioners of Calcutta and Bombay and the local Directors of Animal Husbandry and Veterinary Services in other States should be included in the Regional Railway Advisory Committees.

CHAPTER XI

GENERAL PROBLEM OF CATTLE SLAUGHTER IN INDIA

INTRODUCTION

123. The terms of reference to the Committee are confined to the prevention of slaughter of useful milch cattle, particularly in cities, like, Bombay and Calcutta. The foregoing chapters deal with the subject strictly in accordance with the terms of reference. It is considered, however, desirable to add a general chapter for two reasons :—

Firstly, in order that these recommendations may be properly understood and appreciated, it is necessary to give the background information relating to the magnitude of cattle industry, the population of cattle, the trend of cattle population, and the resources available for the proper maintenance and development of cattle in India.

Secondly, the question of total ban on slaughter of cattle, which is now being demanded by a certain section of the population is closely linked with the question of slaughter of milch cattle, when they go dry in the cities.

CATTLE POPULATION

124. India is one of the countries with the largest livestock population in the world. According to 1951 cattle census, she has a total bovine population of 198·4 million animals, composed of 155 million cattle, and 43·4 million buffaloes. This number is made up as under:—

	Million
I. Cattle—	
(a) Males over three years	61.7
(b) Females over 3 years :—	
(i) In milk	18.95
(ii) Dry and heifers which have not dropped a calf	27.86
(iii) Working	2.314
(iv) Others	1.194
TOTAL	49.848
II. Young Stock	43.492
TOTAL CATTLE	155.099
III. Buffaloes—	
(a) Males over 3 years	6.778
(b) Females over 3 years—	
(i) In milk	10.217
(ii) Dry and uncalved	10.776
(iii) Working	0.537
(iv) Others	0.315
TOTAL	21.942
YOUNG STOCK	14.731
TOTAL BUFFALOES	43.351

Importance of Cattle to India

125. To a predominantly agricultural country like India, with 70—80 per cent. of the population living on income from the land, cattle are of very great social and economic importance. The bullock is almost the only motive power available for various agricultural operations. As the average size of holdings is less than 5 acres, the scope of mechanisation is extremely limited and the country has to depend upon cattle labour. Milk and milk products are the only source of animal protein in the national diet. Large areas of the country have to depend upon cattle manure for raising the fertility of the soil. Land and cattle are thus inseparable in India.

Present value of Indian Cattle Industry

126. In spite of its great importance and value, the cattle industry in India is not properly organized and developed. Though the potential value of the industry is very great and India possesses a number of well defined breeds, of cattle, known and valued all over the world, particularly in tropical countries, she has a large number of non-descript and inefficient animals which make the average *per capita* value or production extremely low when compared with that of other livestock countries in the world. Full figures are not available for a comparative study of the monetary value of the industry per head. If the annual milk yield per cow is taken as an index of its value, it would be found that an Indian cow produces only a tenth of what her counter-part does in Europe or America. Her production is lower than that of many countries in other Continents also. The conclusion is, however, clear that the average efficiency of Indian cattle is at present only a fraction of what it is in other countries and what probably is possible.

Shortage of Fodder

127. The greatest handicap is the lack of resources in feeding. Any effort made to improve cattle will fail, unless they can be properly fed. The memorandum prepared by the Joint Committee of the Nutrition Advisory Committee of the Indian Council of Medical Research and the Animal Nutrition Committee of the Indian Council of Agricultural Research, brings out clearly the requirements of the existing cattle population, how much is available and how much can be made available. The annual requirements and availablity as brought out in that memorandum are as under :—

(In million tons)

Feeding stuffs	Estimated requirements	Present supply	Deficiency	Percentage of deficiency
Straw or Kadbi . .	190	130	60	33
Green fodder . .	742	638	104	13
Concentrates, (oil cakes, bran, oil seeds, maize, barley, gram etc.)	40.38	18.76	26.52	70

These figures show that the gap between requirements and supply is extremely wide. Dry fodder is short by 33 per cent. The figures shown against green fodder are not the quantities which are available, but which can be made available if forest resources are fully tapped. Even then the supply is short of requirements by about 13 per cent. The actual availability of this is further limited by the fact that green fodder is available only during the monsoon months and much of it is wasted in the absence of country-wide

arrangements for its conservation. It is in regard to concentrates that the shortage is most serious as the quantity available is only 30 per cent. of the existing requirements. In regard to the shortage of concentrates, it has to be added that the real significance of shortage is much more than what is indicated by the quantity, because the nutritive value of straw, *kadbi* and other fodders available is very poor. It is the concentrates that supply the requirements of protein, which is essential for work, milk production and growth. Unless an adequate supply of concentrated feeds is made available to make up for the deficiency in feeding value of the fodder as well, the animals will not be able to grow properly or produce their best.

One of the most serious problems of the development of the vast cattle wealth of the country is how to feed adequately the existing population and at the same time the growing human population. There is already a competition between man and animal for the land available. The growing human population needs more food for which more land is required. The production per acre has also to be increased. With the development of planning, irrigation facilities, provision of artificial fertilizers and large scale adoption of scientific methods of cultivation, production is bound to increase, but as regards cattle, the gap between availability and requirement is so wide that there is little possibility in any forseeable future, of the country producing enough to feed them adequately. Because of the inefficiency of cattle, more cattle are kept by people to supply the demands for milk and work. This furthur deteriorates the position, because the insufficiency of feeds lowers their productive capacity. In other words, inefficiency leads to excessive numbers, while excessive number leads to inefficiency. It is only by breaking this vicious circle that progress can be achieved.

Other Shortages

128. Resources in breeding material are also far short of requirements. To meet the full requirements the country should produce annually 2,50,000 high class bulls. The actual production on Government farms where records of pedigree and production are maintained is only about 1,000 per year. There is thus one bull where 250 are required. The gap will be less as artificial insemination makes progress. So also there is an acute shortage of veterinary personnel which leads to disease control not being fully effective, The cumulative effect of all these shortages makes the task of developing the cattle industry in this country a very difficult one.

Trend of Cattle Population

129. Though a cattle census is being taken every 5 years since 1920, it is not possible to examine the trend of population with any degree of accuracy, because all States in the country have not been taking part in all the censuses. Before Independence, there were some 600 "Indian States", many of which did not take part consistently in the censuses. The percentage of area covered, therefore, varied from census to census. Secondly, some of the major States also did not find it possible to take part in one census or the other. The result is that the figures of subsequent censuses are not comparable. With the partition of the country the situation became still more complicated. The only census taken since the partition was in 1951. This census was complete and covered the whole country, but in the absence of full figures for the preceding censuses, the figure for 1951 cannot be compared with them. According to certain figures worked out in 1948, the cattle population of

India, as a whole, would appear to have remained steady. There were 145 million cattle and buffaloes in 1920 in the States which took part in all the censuses. In the 1945 census, the figure was 144 million. Between these two years the population has remained stationary around the figure of 150 millions, the variations being one to four per cent.

Slaughter of cattle, deaths due to natural causes and premature destruction of calves in cities are causes which have tended to keep the cattle population static in the country. It would be pertinent to examine what the probable trend and size of population will be if the slaughter of all cattle is banned. Here again, in the absence of full figures of slaughter or fertility or all deaths from natural causes, an exact computation is not possible. Approximately, the 70 million breeding cattle in India will produce about 35 million calves a year at the rate of 2 years interval between successive calvings. Assuming the normal mortality to be about 10 per cent. of the total population of 200 million animals, the replacement on this account will require about 20 million. To this must be added the higher mortality among the young-stock, which may be taken to be 10 per cent. over and above what is included for the total population or about 3·5 millions. The births are thus 35 millions while the removal by deaths are 23·5 millions. There will be, if slaughter is banned, an annual increase in population of about 11·5 million animals or 5·75 per cent. The evidence available from other sources indicates that the rate of increase is much more. Thus in the Haringhata Farm in West Bengal, which houses nearly two thousand animals, the rate of annual increase in population is reported to be 15 to 20 per cent. The returns from Mysore State furnished by the Director of Animal Husbandry indicate that three years after slaughter was banned in 1948 the cattle population according to 1951 Census has increased in Mysore State by about 14 per cent. in spite of the continuation of clandestine slaughter even after the ban was imposed. Though these figures do not tally yet it may be correct to assume that if slaughter is totally banned, the annual increase in population would be about 11·5 millions a year. This increase would be still more when, as a result of eradication of rinderpest, control of diseases, improved conditions and other factors, the animal mortality due to these causes tends to become less and less.

Effect of Further Increase in Population

130. When the resources of the country are far from sufficient, for adequately feeding even about half the existing population, the result of any further increase in population cannot but be disastrous. Unfortunately, all those who advocate the imposition of a total ban on *all* slaughter do not make any reference to the limited resources of the country. They seem to think that all that is required for maintaining cattle is to provide some grazing supplemented with some straw or Kadbi. It does not appear to be realised that most of the grazing grounds do not provide anything more than exercise to the animals for the greater part of the year, nor that the straw and kadbi are of very poor nutritive value and are not enough to meet the requirements of milk production and work.

Scientific development of cattle means the culling of the useless and unfit animals and the multiplication of that part of the population which produces more than the average amount of milk and work. Other countries have attained their present levels of production simply because they have always culled those which are not useful in the dairy industry. By banning slaughter completely, the worthless animals instead of being eliminated will multiply themselves and deprive the better part of the population of any chance of development.

Menace of Wild Cattle

131. If the slaughter of all cattle is banned, India will have to face the problem of wild cattle. When slaughter is banned, what will naturally be done by the owner is to let loose his surplus animals and drive them out on the streets which may ultimately find their way to the adjoining fields and forests. In course of time they will grow wild and become a menace to crop production. While this is reported from various places, the Committee actually saw in Pepsu (where slaughter is banned completely) what a menace wild cattle can be. Conditions have become so desperate there, that the State Government have now to spend a considerable sum for catching and redomesticating wild animals to save the crops.

Gosadans

132. The Cattle Preservation and Development Committee set up by the Government of India in 1948 recommended *inter alia* the establishment of Gosadans in out of the way places where the useless or uneconomic cattle in India, could be housed cheaply and allowed to die a natural death. In pursuance of this recommendation, a scheme for the establishment of 160 Gosadans in India was included in the first Five Year Plan and a sum of Rs. 97·15 lakhs was included in the budget.

A Gosadan is designed to house 2,000 animals on a block of land of about 4,000 acres. No uncastrated male is to be permitted in this area, fodder is to be cultivated on a small piece of land and rotational and controlled grazing is to be practised. The surplus grass during rainy season is to be cut and preserved for use in scarcity months. Thatched sheds for housing the animals and protection against wild animals were also provided.

It was estimated that one Gosadan capable of housing 2,000 animals would require Rs. 50,000 non-recurring and Rs. 20,000 per annum recurring.

Up-to-date 24 centres have been sanctioned but only 17 have been started in Bihar, U.P., Pepsu, Coorg, Bhopal, Kutch, Vindhya Pradesh, Tripura and Saurashtra. The reports so far received show that full public co-operation is lacking and that no Gosadan is fully stocked. The present aggregate population of these 17 Gosadans is only 5,293 instead of the normal capacity of 34,000. Lack of funds with State Governments for meeting their share of the expenditure, non-availability of suitable land, absence of legislative measures for the compulsory removal of unproductive cattle from owner's premises, transport difficulties, etc., are generally the reasons advanced as to why Gosadans have not achieved any success so far.

Gosadans, No Solution

133. According to the estimate of the Cattle Preservation and Development Committee, there are about 20 million un-economic cattle in India. To house and maintain all these animals, thousands of Gosadans and lakhs of acres of land would be needed. In addition huge recurring expenditure would have to be incurred. In view of this and in view of the indifferent response from the States in setting up Gosadans, the Committee are of the view that the Gosadan scheme is not likely to offer a solution for the problem of useless cattle and that it would be far more desirable to utilise the limited resources of the country to increase the efficiency of the useful cattle.

Total Ban on Slaughter Undesirable

134. After careful consideration the Committee have come to the conclusion that a total ban on slaughter of all cattle would not be in the best interests of the country as it is merely a negative and not a positive approach to the problem. They consider that as already indicated in the report, a constructive approach to the problem is to see that no useful animal is slaughtered and that the country's resources are fully harnessed to produce better and more efficient cattle.

Need for Statistical Organisation

135. The Committee were considerably handicapped in their work for want of accurate statistical data. The same difficulty has also been experienced in studies pertaining to other aspects of animal husbandry. No survey of livestock industry has so far been made in any of the States in India. Full and authentic figures based on systematic surveys are not available even in regard to essential items like the magnitude of the industry, the development of livestock, conditions of production and marketing, seasonal variations in production, market intelligence, movements of livestock and livestock products, various aspects of ghee industry, slaughter in recognised slaughter houses and outside, actual and potential milk pockets, production and requirements of milk in various towns, production and marketing of hides and skins and other by-products like bones, horns, hoofs etc.

It is essential that urgent steps should be taken to provide a full-fledged statistical section in the Animal Husbandry Department of each State for the regular collection, collation and dissemination of statistical data and other information relating to all aspects of animal industry. A suitable model scheme should be prepared in consultation with the Statistical Adviser to the Indian Council of Agricultural Research for adoption in all the States to facilitate the compilation of all-India data. The work of the Statistical Section in the different States should also be co-ordinated by the Central Government through a comprehensive organisation like the I.C.A.R. on which all agriculture and animal husbandry interests in India are represented.

Need for Whole-time Member on Planning Commission

136. In Chapter No. VII it has been indicated that the implementation of the recommendations of this Report would cover a large field for the development of cattle and dairy industries of India. These industries have undoubted potentialities for development, which would add considerably to the national income and the standard of living of people. Excepting in the cities of Bombay and Calcutta, however, no appreciable action has been taken or organisations created for paying proper attention to this matter. There are dairy development officers appointed in many of the States but the scope of their activities is limited. They are, therefore, not able to put through large developmental projects. Much greater attention to the development of cattle and dairy industries should, therefore, be paid by the Central Government than hitherto. The Committee, therefore, recommend that there should be a full time member in the Planning Commission who should devote his entire attention to the plans for the organization of milk supply to the cities and to the development of dairying and cattle industries in the country. If this recommendation is accepted, enough funds may be provided in the Second Five Year Plan for fully implementing the recommendations in this Report.

CHAPTER XII

SUMMARY OF RECOMMENDATIONS

To facilitate quick reference to the proposals of the Committee, the various recommendations and important observations made in the report have been picked out and reproduced in this Chapter either *in toto* or in a condensed form. Against each recommendation, numbers are given which refer to paragraphs in the text on which each recommendation is based.

PREAMBLE

The problem of slaughter of milch animals is associated with the growth of cities. The human population of urban areas has increased by about 50 per cent. since 1931. In large cities like Bombay, Calcutta and Madras, the population has more than doubled itself. When the population was small, their milk requirements could be met from a few cattle kept within the cities; but when the population increased, more animals had to be brought in. Space was limited and the result was extreme congestion in the stables, and animals were maintained under unnatural conditions. The rent and the cost of maintenance were very high, no breeding arrangements were available; calves were starved to death, mal-practices were resorted to, to make the animals let down their milk without calves; dry periods were very long and salvage of dry animals or sending them back to the breeding areas was uneconomic. Animals could not be kept in the stables till recalving owing to high cost of feeding and lack of space. The selling of dry cattle to the butcher thus became an economic necessity.

The city merchant is only a producer of milk and not a breeder interested in the breeding and development of cattle. He is concerned only in the immediate income from his investment. He does not therefore, mind selling the animals to the butcher (1, 4, 15, 16, 42, 56, 47, 70).

2. Only the very best of milch animals in the breeding tracts are brought into the cities, because second rate animals cannot pay their way in urban stables. This one way traffic in high-class animals, which should normally be used for multiplication, is progressively leading to the depletion of the cattle wealth of the country (3, 15, 45, 81, 117—119).

3. The Committee studied the various aspects of this problem. They studied also the recommendations of the committees who have examined the subject in the past, as well as the action taken in Bombay, Calcutta and Madras. This analysis and appraisal of the problem has convinced the Committee that the present unnatural system of maintenance of cattle in city stables is the root cause which leads to the premature slaughter of prime milch cattle and destruction of their calves, as also of the concomitant evils of cruelty, exodus from breeding tracts, depletion of cattle wealth, inadequate and unhygienic supplies of milk and so on. The Committee is accordingly of the view that the only permanent solution to the problem is to eradicate the root cause thereof, which means the wholesale removal of all cattle from urban areas and the supply of milk from rural areas situated preferably in breeding tracts. Measures like legislative ban on slaughter and cruelty, or salvage of animals which have already been mishandled and misused in city stables, will only be treating the symptoms and not curing the disease (84, 85).

4. This problem does not exist in the cities of other countries because timely action was taken by them to arrange milk supplies from rural areas. City stables do not exist and no dry cows, have, therefore, to be salvaged. The milch animals are maintained on dairy farms located in rural areas where conditions of their maintenance and milk production are suitable (83).

RECOMMENDATIONS

Item 1.—To prevent the killing of milch cows, particularly in the cities of Calcutta and Bombay even when they had gone temporarily dry.

RECOMMENDATION 1 :

The wholesale removal of milch cattle from cities and the replacement of city produced milk by milk produced by animals kept in their natural surroundings in rural areas is the only permanent method of solving the problem of prevention of slaughter of milch animals (4, 16, 30, 33, 38, 47, 48, 51, 84).

RECOMMENDATION 2 :

A comprehensive organization should be set up immediately in each State for efficiently handling the numerous aspects of the complicated matter of developing milk production in rural areas to their maximum capacity and for its collection, processing and transport to and distribution in urban areas. In this work, particular attention is needed to the setting up of a Milk Collection Organization of the numerous primary producers; construction of all-weather motorable roads; assistance and advice in breeding, feeding, disease control, calf rearing and all other aspects of animal husbandry development, timely collection and transport of milk to a central plant for treatment; quality control; construction of cold storage; setting up of a milk plant for final processing and bottling and building up of an efficient marketing service (30, 33, 34, 35, 37, 51—54, 85).

RECOMMENDATION 3 :

Arrangements for the manufacture and marketing of condensed milk, dried milk, ice-cream, *chhanna*, butter or ghee, as the case may be, should be an integral part of this milk plan, for the economic disposal of surplus milk (86, 112, 114).

RECOMMENDATION 4 :

The milk plan should be worked in the best interests of both the producer in the villages and of the consumer in the urban areas so that it may result in the large scale development of cattle and dairy industries of the country (95, 96, 136).

RECOMMENDATION 5 :

It would not be possible for rural areas for a long time to come to supply the large and growing needs of big towns like Calcutta, Bombay, Madras and perhaps some other cities. The production from rural areas should, therefore, be supplemented in such cases by the colonisation of the existing urban producers in suitable localities outside the towns (29, 30, 32, 37, 55, 56, 63, 64, 65, 71, 72, 88, 89, 90, 97).

RECOMMENDATION 6:

Such milk colonies should be self-contained units in regard to fodder production and accommodation for cattle and their owners as well as attendants. The establishment of farms for the salvage of dry cows and buffaloes and for the rearing of calves, at suitable places, should be a part of the colony scheme. (Same as 5.)

RECOMMENDATION 7 :

The colony part of the scheme should be financially self-supporting except in regard to initial capital outlay, but in regard to salvage of dry animals and the rearing of calves, subsidies should be given by Government (32, 64, 65, 89, 97).

RECOMMENDATION 8 :

Governments of Bombay and West Bengal have already created suitable organizations to deal with the problem in the cities of Bombay and Calcutta. Appropriate machinery should be set up for handling the milk plans for other towns in India. This machinery should initially be handled by a senior suitably trained officer and should eventually be handed over to a body like an autonomus Milk Board (99).

RECOMMENDATION 9 :

It will not be possible to undertake this work at once in all the cities of India, but during the Second Five Year Plan, the re-organisation of milk supplies on the lines indicated under Recommendations 1 and 2 should be completed in regard to at least one or two selected cities in each State (91).

RECOMMENDATION 10 :

Legislation, where necessary, should be enacted to enforce compulsory pasteurisation of all milk distributed in cities so that the work of quality control may be effectively enforced (17, 92).

RECOMMENDATION 11 :

Suitable machinery should be created in the Ministry of Food and Agriculture (Government of India) to help the States in formulating and implementing requisite plans for this work. Special assistance of Central Government should be made available to States which do not possess experienced technical staff (90, 93, 95, 96, 97).

Interim Measures

RECOMMENDATION 12 :

Until such time as the milk supply of cities can be re-organised in accordance with the fore-going recommendations, the following interim measures should be adopted to arrest further depletion of high-class milch animals:—

(*a*) Stables and cattle in the cities must be licensed and movement of cattle allowed only under a permit.

(*b*) To prevent further growth of city milch cattle population, import of animals should be allowed only on the basis of animals which die or are salvaged or are disposed of under a certificate.

(*c*) Adequate breeding facilities should be made available free of cost in the cities.

(*d*) Self-contained salvage and calf rearing farms should be set up by State Governments.

(*e*) Maintenance of dry cattle and calves in these farms should be subsidised, and salvage of dry cows and buffaloes should be restricted to high yielding animals which are in calf.

(*f*) Selected Goshalas and Pinjrapoles should be helped with additional facilities and funds, where necessary, to enable them to undertake salvage of dry animals and rearing of calves.

(*g*) The existing method of assessment for levying income-tax should be revised to enable the owners to retain their dry stock without inflating their assets.

(*h*) Concession in railway freight for return of dry animals and their calves from cities to rural areas should be further liberalised to 25 per cent. of the normal freight and should be applicable, to all cities instead of to Bombay, Calcutta and Madras only as at present.

(*i*) Salvage farms should also be set up in the breeding tracts by the State Govenments concerned.

(*j*) An export fee of Rs. 20 per animal exported by rail from breeding tract should be levied and constituted into a cattle improvement and salvage fund for defraying the cost of salvage as well as for subsidising the retention of basic stock.

(*k*) The State Governments concerned should set up an organisation for purchasing dry cows and buffaloes from cities, transporting them to the breeding tracts and disposing them of there.

(*l*) The legislation against the slaughter of useful cattle should be made fully effective by making it applicable to the entire State and not only to a part of it, and by the provision of adequate veterinary and police staff.

(*m*) The provision against sale of contraband beef should be rigorously enforced and fresh legislation should be enacted where necessary.

(*n*) Male calves of buffaloes should be excluded from the categories of animals whose slaughter is prohibited.

[4(a), 4(b), 8, 9, 10(a), 16(c), 22, 26, 30, 31, 47(a), 47(c), 51, 56, 89, 94, 121.]

ITEM 2.—"*To make the present law on the subject more effective so as to put an end to such evil practices as Phooka.*"

RECOMMENDATION 13 :

To prevent 'Phooka', milch cows should be maintained under conditions where their calves can be reared. This problem will solve itself when Recommendations No. 1 and 2 for the wholesale removal of cattle from urban areas are implemented. In the meanwhile, the following steps should be taken:—

(*a*) The relevant provision in the prevention of Cruelty to Animals Act should be more effectively enforced.

(*b*) The rewards offered to the informants, provided in the Act, should be enhanced and made more attractive.

(*c*) The punishment prescribed in the existing law should also include cancellation of the licence of the offenders for the keeping of milch animals. (23, 47, 100–103.)

ITEM 3.—"*To explore the possibility of making milk powder in suitable centres*"

RECOMMENDATION 14 :

The replacement of export of milch animals from breeding areas by the export of milk powder manufactured there is not considered feasible. (111.)

RECOMMENDATION 15 :

Surveys should be carried out of areas considered to be actual or potential milk pockets in parts of the country like Gujerat, Saurashtra, Nilgiris, Karnal, Jullunder, Sangrur, Aligarh, Darjeeling and Guntur, to examine their suitability for the establishment of milk condensing or drying plants, in order to fully utilise seasonal surpluses and to make the country independent of foreign supplies. (114, 115.)

RECOMMENDATION 16 :

Researches should be undertaken both with cow and buffalo milk, produced under village conditions, for investigating the technological and organisational problems connected with drying and condensing. (115.)

RECOMMENDATION 17 :

Researches should also be undertaken to study the technological and organisational problems involved along with economies thereof in the long distance transport and marketing of sterilised milk in the cities of Bombay and Calcutta. (112, 115.)

ITEM 4.—"*To impose some effective control in the Inter-State movement of cattle*".

RECOMMENDATION 18 :

The imposition of a total ban on the Inter-State movement of milch cows and buffaloes is against the interests of both the breeders in the breeding tracts and milk consumers in the cities and is therefore not recommended. (120.)

RECOMMENDATION 19 :

As high quality milch animals have already become scarce in the breeding tracts, the following steps should be taken for their resuscitation to prevent further depletion :—

(*a*) A remunerative market for the sale of milk produced in breeding areas should be developed.

(*b*) Export from breeding areas should be restricted to such cows and she-buffaloes as have dropped at least two calves in the breeding tracts.

(*c*) The rearing and breeding of high-class animals in the breeding tracts should be encouraged. To a large extent this will automatically follow the full implementation of recommendations Nos. 1 and 2.

(*d*) In the selection of breeding stock in the Hariana tract, more emphasis should be laid on milk rather than on draught alone.

(*e*) Cattle and buffaloes in the breeding tracts should be registered and the retention of selected high-class stock should be subsidised. (84, 85, 119, 120, 121.)

RECOMMENDATION 20 :

An organisation to purchase dry cows and buffaloes from the cities and to sell them to the breeders in the breeding tract should be set up by the State Governments in the exporting areas. (121.)

RECOMMENDATION 21 :

In order to facilitate ventilation of hardships of cattle trade in their movements by rail as well as to advise railways on the various aspects of transport of milk and milk products, the Milk Commissioners of Bombay and Calcutta and the Directors of Animal Husbandry and Veterinary Services in other States should be included in the Regional Railway Advisory Committees. (122.)

General Recommendations

RECOMMENDATION 22 :

Legislation for the prevention of slaughter of useful cattle should be uniform in all States. (78.)

RECOMMENDATION 23 :

In view of the enormity of the problem and other inherent practical difficulties, the disposal of old and useless cattle through Gosadans is not considered a practicable proposition. (132,133.)

RECOMMENDATION 24 :

The present fodder and other resources of the country are grossly inadequate to maintain even the existing cattle population. Complete ban on the slaughter of all cattle will tend to increase their numbers further and jeopardise the well-being of the limited number of a few good cattle the country still possesses ; it will also result in a real danger of the number of wild cattle increasing and proving a menace to the production of crops. A complete ban on the slaughter of cattle would, therefore, not be in the best interest of the country as it is merely a negative and not a positive approach to the problem. (127, 128, 130, 131, 133, 134.)

RECOMMENDATION 25 :

A full-fledged statistical section should be set up in the Animal Husbandry Department in each State for the regular collection, collation and dissemination of statistical data and other information relating to all aspects of animal husbandry.

The work of these sections should be fully co-ordinated by the Central Government through a comprehensive Organization like the Indian Council of Agricultural Research, on which all the agriculture and animal husbandry interests in the country are represented. (135.)

RECOMMENDATION 26 :

In view of the undeveloped state of the potentially large cattle and dairy industries of India, the Central Government should pay much greater attention and take more initiative in the development of these industries than they have done hitherto. It is, therefore, essential that there should be a whole-time member in the Planning Commission to devote his entire attention to the development of cattle and dairy industries in the country.

Adequate funds should be provided in the Second Five Year Plan for fully implementing all the recommendations in this Report. [76(*f*), 87, 95, 96, 136.].

SRI P. N. NANDA, *Chairman.*

,, K. C. SEN, *Member.*

,, D. N. KHURODY, *Member.*

,, L. C. SIKKA, *Member.*

,, B. N. HANDA, *Member.*

,, V. R. RAJAGOPALAN, *Member.*

,, SANTOKH SINGH, *Member.*

,, K. P. R. KARTHA, *Secretary.*

Dated the 16*th January*, 1955. ,, HARBANS SINGH, *Joint Secretary.*

सत्यमेव जयते

Appendix I

Expert Committee on the Prevention of useful Cattle

QUESTIONNAIRE

This questionnaire is issued for the collection of data in regard to a number of aspects of slaughter of useful cattle, production of milk and supply of milk to towns.

Section 1

Statistics of Slaughter

1. No. of cattle slaughtered in each of the towns in your State during the last 5 years. These figures may be supplied in the attached proforma.

2. Are cattle also slaughtered outside slaughter houses ? If so, approximate figures for each of the 5 years 1948-49 to 1952-53 may be given in the attached proforma.

3. The number of prosecutions for illegal cattle slaughter outside propers laughter houses during the 5 years 1948-49 to 1952-53.

N.B.—The source of information for answers to questions No. 1 and 2 above may kindly be indicated.

4. What proportion of slaughtered cattle in your State is useful and worth preservation: The information may be given in the enclosed proforma.

5. What is the approximate number of useless cattle in your State?

6. What is the average price realized by owner on sale of cattle to butcher—

(*a*) From city stabie (i) Cattle, (ii) buffaloes?

(*b*) from other sources (i) Cattle, (ii) buffaloes?

The information may be given in the enclosed proforma.

7. How much is realised on sale of beef, hides, bones and blood, etc., from—

(*a*) City cattle (b) Other cattle.?

Section 2

Rules and Regulations

8. What are the rules and regulations regarding the slaughter of cattle in your State and how are they administered ? A copy of these rules and regulations may kindly be attached to your answer.

9. Do you think that the administration of existing laws is satisfactory? If not, what measures would you suggest for making the administration effective ?

10. (*a*) Do you want a ban on slaughter of all cattle or only of useful cattle ?

(*b*) If you advocate the banning of slaughter of all cattle what would be its effects on :

(*i*) Available supply of cattle feeds and fodder and their prices.

(*ii*) Effect on the problem of wild cattle.

(*iii*) Increase in cattle population.

(*iv*) Efforts on development of cattle.

(*v*) The requirement of meat for the habitual consumers.

(*vi*) Effect on prices of mutton, fish and poultry.

11. What in your opinion should be the definition of useful cattle ?

12. What are the mal-practices such as 'Phooka' to which cattle are subjected in your State and what steps are being taken to put a stop to such practices ?

13. Are adequate breeding arrangements made in the city stables ? What are they ? How many breeding bulls are kept per 1,000 females ?

14. If your State has imposed a complete ban on the slaughter of all cattle, what arrangements have been made for the disposal of old and derelict cattle ?

15. Is there a wild cattle problem in your State ? If so, what has been its trend during the past 5 years?

SECTION 3

Salvage of Dry Cattle

A. Salvage by Government—

(*a*) Places where drystock farms are located.

(*b*) Number of cattle maintained on each.

(*c*) Cost of maintenance per animal per day (give detail).

(*d*) Average duration of stay per animal (number of days).

(*e*) Any other type of assistance, *e.g.*, transport, subsidy, etc. given by the State for Salvage work.

(*f*) Total amount of money spent annually on the salvaging of dry animals by the State.

16. *Salvage by private organizations* (milk producers and others)—

(a) Are the existing salvage organizations efficient and have they adequate resources and facilities for salvaging all dry cattle from cities? If not, what are the additional facilities needed ?

(*b*) What is the average cost of maintenance per animal ? What is the average duration of stay of each animal in the salvage area or farm ?

17. What proportion of calves die or are starved to death in city stables ?

18. What percentage of cattle brought to the slaughter house is not approved for slaughter and what happens to animals which are not permitted to be slaughtered ?

SECTION 4

Import of Cows and She-buffaloes into Cities

9. How many (a) cows, she-buffaloes were imported into each of the cities in your State during each of the five years 1948-49 to 1952-53 and how many (a) died, (*b*) sold for slaughter, (c) salvaged ?

How many cows and she-buffaloes are exported from the cities ?

N.B.—Please give the information in the attached proforma.

20. Which are the areas from which these animals are imported ?

21. How are the breeding tracts affected by export of cattle to cities from them ? Give any figure available about the population, quality and prices of milch animals of these areas during the five years 1948-49 to 1952-53.

22. What is the population of (*a*) cows (b) she-buffaloes in each of the towns in India during each of the five years 1948-49 to 1952-53 ? (Information may be given in enclosed proforma.)

23. In regard to the cows and she-buffaloes imported from the breeding areas, please give the following information :

(*a*) Average daily milk yield.

(*b*) Age of lactation in which the animals are imported.

(*c*) The period for which they are retained for milk supplies in the towns.

(*d*) The average price paid on importation.

24. Do you have a plan for the removal of milch cattle from city stables and for milk supplies from outside ? If you have, please furnish a copy of the Plan.

25. Is there any system of licensing milch animals in each of your municipal areas ? If so, how is it working. Have you any suggestions to improve its working ?

SECTION 5

Inter-State Movement

26. What is the total volume of Inter-State trade in cattle? Give statistics for the five year 1948-49 to 1952-53 for animals moved by rail, road and river. The figures should be given separately for cows, buffaloes, bullocks and young stock.

27. Are you in favour of any ban or restriction being imposed on the import into or export from your State ? If so, what type of restriction should be imposed ? And how should it be implemented ?

SECTION 6

Manufacture of Milk Powder or Condensed Milk

28. If a ban is imposed upon the export of milch cattle from the breeding areas, what will be its effect on the milk supply in your cities ?

29. If a ban is imposed on the export of milch cattle from your State, what will be the effect on the cattle breeding industry in your State ?

30. What is your reaction to getting milk powder, condensed milk or processed milk into your cities instead of importing milch animals ?

31. What are the possibilities of importing milk from outside areas within or without your State for augmenting the milk supplies in your cities ?

32. Have you any area or areas in your State which can supply 30,000 to 50,000 lbs. of milk a day within two or three hours of milking ? If so, give details.

33. If there is no such area at present, which is capable of producing 30,000 to 50,000 lbs. per day, can such an area of this potential capacity be developed in the course of two or three years. ?

SECTION 7

34. (*a*) Latest cattle census figures for each district in the State in respect of each of the classification adopted by the census authority.

(*b*) Total cattle in the State.

(*c*) Total in each city with a human population of 50,000 or more.

35. Details of milk schemes which the State may be running such as co-operative-colonisation or any other type apart from selling milk from Government farms. The following details may be given :

Average quantity handled per day during the last two years, in (i) raw condition, in (ii) pasteurized conditions, and in (iii) bottle.

Question No. 1.—Statistics of slaughter of cattle and buffaloes in India.

N. B.—Figures should be given for each slaughter house.

Name of the slaughter house.....

State.....

	Cattle					Buffaloes					
	1948-49	49-50	50-51	51-52	52-53	1948-49	49-50	50-51	51-52	52-53	
Adults—male .											
,, female .											
Young stock—males											
,, females											
Total											

Question No. 2.—Proportion of slaughtered cattle which are useful.

Adults—male .											
,, female .											
Young stock—males											
,, females											
Total .											

Question No. 6.—Prices realised by owner on sale to butchers.

City cattle . .											
Cows from City Stables.											
Buffaloes from City stables. .											
Local cattle .											
Other cattle .											
Cows . .											
She-buffaloes .											
Males . .											

Question No. 19.—Imports into and exports from cities.

Cows . .											
She-buffaloes .											

Population of milch cattle in cities.

Cows . .											
She-buffaloes .											

Appendix II

Press Information Bureau, Government of India

PRESS NOTE

Preventing Slaughter of Milch Cattle

Expert Committee Invites Public Co-operation

It is a matter of common knowledge that a large number of milch cattle are annually slaughtered in India, particularly in big cities like Bombay and Calcutta.

As the cost of maintenance in these cities is high, only high yielders or the very best are imported from the breeding tracts for the city's milk supply. The animals are kept in un-hygienic and unhealthy surroundings and congested atmosphere, their calves are starved to death and pernicious practices, like the 'Phooka', are practised on them. No good bulls are maintained for breeding purposes. These unwholesome conditions generally tend to destroy the breeding value of the cows, many of which are sent to the butcher at the end of the lactation. Fresh stock is imported from the breeding areas in replacement. The result is a steady and continuous depletion of the cattle wealth of the country.

Public Agitation

This subject has been agitating the public mind for a considerable time, and the alarm caused by it has been voiced frequently in the press, on the platform and on the floors of legislatures. The Government of India and the State Governments have been alive to the problem and have taken certain steps, during the last 15 years or so, to find a suitable solution.

The Indian Council of Agricultural Research appointed an itinerating committee in 1940 to investigate the matter on the spot in the cities of Madras, Bombay and Calcutta. The prevalence of war conditions interfered with the work of this committee, which could visit only Madras and Bombay. It made a number of suggestions, the most important of which was the systematic removal of cattle from the cities and replacement of the existing city-produced milk by supplies of milk produced in the rural areas.

A number of States have passed legislation, some for a total ban on cow-slaughter and others for a ban on the slaughter of useful cattle.

The Government of India appointed a Cattle Preservation and Development Committee consisting of officials and non-officials, in 1948. This Committee recommended a ban on the slaughter of useful cattle as also establishment of Gosadans in the forest areas not being fully utilised at present, where unproductive, diseased and useless animals could be housed and maintained at a low cost, allowing them to die a natural death, and where the remains of dead animals, like hides, horns, hoofs and bones. could be profitably disposed of.

Gosamvardhana Council

A Gosamvardhana Bill was recently introduced in Parliament, but it had to be given up owing to the formation of legislatures in part 'C' States. By a Government resolution, dated January 30, 1952, a new orientation was given to the policy of Gosamvardhana and the Gosamvardhana Council was constituted at the Centre for improving the breed of cattle and their preservation and protection.

Another step taken was the introduction of concessional rates for the return of dry cattle from the cities to production areas in order to facilitate the flow of dry cattle back to their homes. Morever, a ban has now been imposed on the export of beef from Indian Sea-ports which may have a salutary effect on the position of slaughter in the country.

As mentioned before, the requirements of city milk production are met only by the very best cattle available in India, and it is these cattle that find their way to the slaughter houses.

It has to be borne in mind that the total cultivated area in India is only 270 million acres, in addition to another 70 million acres of *culturable* waste. Each cattle requires at least one acre of cultivated land to maintain itself and produce milk or work. Thus, the 360 million human beings in this country are competing for their existence with 195 million cattle. The problem is still more acute when one bears in mind that there are other domesticated animals, like 86 million sheep and goats, who compete with bovines for the available food.

As a result of the restrictions imposed on the slaughter of cattle in the various States, it has been noticed that the problem of stray cattle, which cause heavy damage to standing crops is on the increase. They also spread disease and are a menace, to public health.

Collection of Data

Government have now appointed an expert committee on Cattle Preservation which has started functioning and will go round the country in the course of the next few months. They are at present collecting data and information on the various aspects of this slaughter.

The Committee have invited the co-operation of the public, and individuals and associations, who have given thought to the problem and have material and suggestions based upon actual study and experience. They are asked kindly to furnish a note to the Committee embodying their views in regard to the effective measures that may be taken for preventing the slaughter of cattle. The note should not exceed 1,000 words in length and reach the Secretary of the Committee, Jamnagar House Hutments, New Delhi, not later than August 20, 1954.

Ministry of Food and Agriculture

New Delhi, August 8, 1954.

सत्यमेव जयते

APPENDIX III(*a*)

LIST OF PERSONS INTERVIEWED BY THE EXPERT COMMITTEE ON PREVENTION OF SLAUGHTER OF CATTLE

Pepsu

1. Shri R. S. Randhawa, Development Secretary, Pepsu.
2. Shri P. S. Brar, Director of Veterinary Services , Pepsu.
3. Shri Budh Singh Gurdial Singh, Animal Dealers, Patiala.
4. Shri Tewari of Cattle Catching Operations, Nadimpur.
5. Assistant Director of Health Services, Pepsu.
6. Director of Agriculture, Nabha.
7. Deputy Commissioner, Patiala.
8. Conservator of Forests, Nabha.
9. Representative of the Nabha Gaushala Committee.

Bombay

10. Minister-in-charge, Bombay Milk Supply Scheme.
11. Mayor of Bombay.
12. Shri V. Isvaran, I.C.S., Secretary to the Government of Bombay.
13. Shri P. R. Nayak, I.C.S., Municipal Commissioner, Bombay.
14. Dr. L. M. Hira, Superintendent of Markets and Slaughter houses, Municipal Corporation for Greater Bombay.
15. Dr. V. V. Puri, Executive Health Officer, Bombay.
16. Shri D. F. Gadkary, Officiating Director of Agriculture, Bombay State.
17. Shri S. R. Chaddah, Director of Veterinary Services, Poona.
18. Shri J. A. Singh, I.F.S., Chief Conservator of Forests, Bombay State.
19. Shri G. S. Godbole, Dairy Development Officer, Bombay State.
20. Police Official, Bombay State.
21. Licensees and Officials of Aarey Milk Colony.
22. Shri J. N. Mankar, Secretary, Bombay Humanitarian League.
23. Miss F. H. Wadia of S.P.C.A.
24. Shri S. S. Chopra, Vice-President, Ram Rajya Parishad.
25. Representatives of Gohatya Virodhi Samiti, Bombay.
26. Representatives of Bombay State Goraksha Samiti.
27. Representatives of Jamait-ul-Quresh, Cattle Dealers and Butchers Association.
28. Shri M. A. Latif, M. L. A., Exporters of Beef from Bombay and Representative of Messrs. Ebrahim Noordin & Co.

Ahmedabad

29. Mayor of Ahmedabad.
30. Municipal Commissioner.
31. Health Officer, Ahmedabad.
32. Superintendent of Slaughter Houses.
33. Shri P. N. Kothawala, Cattle Breeder and Farmer.
34. Secretary, Ahmedabad Khoda Dhor, Ahmedabad.
35. Secretary, Gujarat Goshala Sangh, Harijan Ashram, Sabarmati.
36. Shri Surabhai Punabhai Bharawad, Nawa Vadaj.
37. Secretary, Koreishi Jamait, Shahpur.
38. Shri Maganbhai R. Patel, M. L. A., Ahmedabad.

39. Shri K. S. Bhumgara, Commission Agent, Ahmedabad.
40. Shri P. J. Patel, Proprietor, Missionery Dairy Farm, Ahmedabad.

Calcutta

41. Minister-in-Charge of Agriculture and Animal Husbandry, West Bengal.
42. Shri K. Sen, Secretary, Agriculture, Forests and Animal Husbandry Department, West Bengal Government.
43. Dr. H. K. Nandi, Director of Agriculture, West Bengal Government.
44. Dr. S. Dutta, Director of Veterinary Services and Animal Husbandry, West Bengal Government.
45. Shri N. Pal, I.F.S., Chief Conservator of Forests, West Bengal.
46. Shri B. K. Sen, Commissioner, Calcutta Corporation.
47. Shri P. C. Basu, Deputy Mayor, Corporation of Calcutta.
48. Health Officer, Calcutta Corporation.
49. Shri P. C. Banerjee, Ex-Assistant Director of Veterinary Services, West Bengal Government.
50. Representatives of Calcutta Pinjrapole Society.
51. Mr. V. KIVac, Director, Bata Shoe Company Limited.
52. Representatives of Milk Producers of Calcutta.

Bangalore

53. Secretary to the Government of Mysore, Home, Forest and Agriculture Department.
54. Director, Department of Agriculture, Mysore Government.
55. Director, Animal Husbandry Department, Mysore Government.
56. Chief Conservator of Forests.
57. Mayor of Bangalore Corporation.
58. Commissioner, Bangalore Corporation.
59. Health Officer, Bangalore Corporation.
60. Shri N. Sriram Reddy, Model Dairy Farm, Madhavanagar.
61. Shri Devadu Narasimha Sastry, Shankarapuram, Bangalore.
62. Representative of Goseva Sangh.
63. Representative of Rashtriya Swayam Sevak Sangh.
64. Representatives of Butchers.
65. Shri Maniam, Local Representative of Mail.
66. Rai Bahadur T. Thangavalu Mudaliar, President, S.P.C.A.
67. Dr. Narayan Kolar.
68. Mrs. Srinivasa Chari, Representative of S.P.K.A.
69. Representatives of Anglo-Indian Association.
70. Shri Bhurde, Organiser, South India Krishi Go Sangh.

Madras

71. Minister for Agriculture, Madras.
72. Commissioner of Police, Madras.
73. Chief Conservator of Forests, Madras.
74. Director of Central Leather Research Institute, Madras.
75. Superintendent, Slaughter Houses, Madras Corporation.
76. Director of Agriculture, Madras.
77. Director of Statistics, Madras.
78. Principal, Institute of Leather Technology, Washermanpet.
79. Commissioner, Madras Corporation.
80. Honorary Secretary, Southern India Skin and Hides Merchants Association.
81. Registrar of Co-operative Societies, Madras.
82. Managing Director, Chrome Leather Company, Chrompet.

83. Shri H. K. Chambers, Errabalu Chetti Street, Madras.
84. Honorary Secretary, Madras Pinjrapole, Madras.
85. Honorary Secretary, S.P.C.A.
86. Assistant Secretary, S.P.C.A.

Delhi

87. Shri H. C. Verma, Deputy Dairy Development Adviser, Ministry of Food and Agriculture.
88. Health Officer, Delhi Municipal Committee.
89. Shri R. Gopalan, Dairy Development Officer, Delhi State.

सत्यमेव जयते

APPENDIX III (b)

LIST OF PLACES VISITED BY THE EXPERT COMMITTEE ON PREVENTION OF SLAUGHTER OF CATTLE

Pepsu

1. Wild Cows Catching Centre, Kathgarh, Pepsu.
2. Artificial Insemination Centre, Nabha.
3. Cattle fair, Sunam.
4. Nabha Gaushala.
5. Veterinary Hospital, Malerkotla.
6. Grain Market, Malerkotla.
7. Community Project, Malerkotla.

Bombay

8. Aarey Milk Colony, Bombay.
9. Artificial Insemination Centre, Aarey Milk Colony.
10. Adarsh Dugdhalya, Malad, Bombay.
11. Paramount Dairy Farm, Bombay.
12. Bandra Slaughter Houses and the Market.
13. Various Stables in Jogeshwari, Greater Bombay.

Anand

14. Kaira Milks Supply Corporation Union and Villages around Anand.
15. Institute of Agriculture, Anand.

Ahmedabad

16. Milk Shops.
17. Sabarmati Ashram.
18. Cattle Bazar.
19. Slaughter House.
20. Pinjrapole.

Calcutta

21. Express Dairy Farm, Behala.
22. Various Cattle Stables in South Calcutta.
23. Cattle stables in Gaobagan.
24. Edward Keventor's Dairy Farm at Fateabad.
25. Haringhata Centre including Milk Colony Unit.
26. Site for milk colony in Kalyani and Kancharpara Pinjrapole.
27. Slaughter Houses at Tangra, Garden Readh, etc.

Bangalore

28. Hosur Cattle Farm.
29. Indian Dairy Research Institute.
30. Composite Livestock Farm and Research Station, Hasarghata.

Madras

31. Vandalur Forest Area.
32. Pallavaram Weekly Cattle Market.
33. Slaughter Houses.

Punjab

34. Breeding tracts in Rohtak District.

APPENDIX IV

SUMMARY OF LEGISLATION IN REGARD TO THE PREVENTION OF SLAUGHTER IN DIFFERENT STATES

The position about the measures taken by the various State Governments for regulating the slaughter of cattle is explained below :—

1. *Assam.*—An Act "Assam Cattle Preservation Act, 1950" was passed by the State Legislature and received the assent of the Governor on 25th April, 1951. It allows the slaughter of only such animals as are over 14 years of age and unfit for work or breeding or such animals which have become permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease. The Act has not yet been enforced.

2. *Bihar.*—A Bill providing for a total ban on the slaughter of cows and calves was introduced in the State Legislative Assembly on the 29th April, 1953, and, has not yet been passed.

3. *Bombay.*—The slaughter of cattle in Bombay State is regulated by the Bombay Animal Preservation Act, 1948" and a Government Order. The Act has been enforced on 1st December, 1952 in 14 Municipalities of Bandra, Kurla, Ahmedabad, Poona, Broach, Surat, Godhra, Ahmednagar, Dhulia, Sholapur, Jalgaon, Hubli, Kapadvanj and Malegaon. The Act provides for a ban on the slaughter of such animals, whether male or female, as are or likely to become useful for the purpose of draught or any kind of agricultural operations and, if male, is useful or likely to become useful for the purpose of breeding; and if female, is useful or likely to become useful for the purpose of giving milk or bearing offspring. The slaughter in the rest of the State is regulated by he Government order which prohibits the slaughter of bulls, bullocks and he-buffaloes and heifers which are useful or are likely to become useful for draught or breeding purposes and male calves and cows, she-buffaloes and heifers which are useful or are likely to become useful for purpose of milk or for bearing offspring and female calves. The slaughter of cattle for the purpose of extraction of lymph and for other *bona-fide* religious purposes is exempted from the operation of this order.

4. *Madhya Pradesh.*—The Central Provinces and Berar Animal Preservation Act, 1949, as amended by the Madhya Pradesh Animal Preservation Amendment Act, 1951, provides for complete ban on the slaughter of cows and female calves in the State. The legislation allows the slaughter of such other animals which are over 14 years of age and unfit for work or breeding and which have become permanently incapacitated from work or breeding due to age, injury, deformity or any incurable disease, and such other animals as are suffering from any disease which makes its meet unwholesome for human consumption. The Act was enforced on 7th March, 1951.

5. *Madras.*—There is no legislation in the State regulating the slaughter of cattle. A Government Order under the Defence of India Rules, issued in October, 1945, however, prohibits the slaughter of cattle below 3 years of age, male cattle between 3 and 10 years of age which are used or are likely to be used as working cattle; all cows between 3 and 10 years of age capable of producing milk, other than cows which are unsuitable for bearing offspring and all cows which are pregnant or in milk. This order was later on amended to include buffaloes.

6. *Orissa.*—No measures have been taken by the State Government to regulate the slaughter of cattle.

7. *Punjab*—The State Government has intimated that on account of the departure of Muslims to Pakistan the cow slaughter is quite insignificant in the Punjab. In view of the circumstances and the existing powers, the Punjab Government is of the opinion that fresh legislation is not necessary in the State.

8. *U.P.*—The slaughter of cattle in the State is regulated by the Local Boards and the Government has approved the model bye-laws for the inspection and regulation of the slaughter houses in the State. The matter was referred to a special Enquiry Committee set up for the purpose whose report is being examined by the Government.

9. *West Bengal.*—The slaughter in the State is regulated by the West Bengal Animal Slaughter Control Act, 1950 which has been enforced in 14 Municipalities with effect from 1st November, 1952. The Act Permits the slaughter of only such animals which are over 14 years of age and unfit for work or breeding or such animals as have become permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease.

10. *Hyderabad.*—The slaughter of cattle in the State is governed by the Hyderabad Slaughter of Animals Act. 1950, which has been enforced since August, 1952. The Act covers only bulls and cows and buffaloes, male and female, and prohibits the slaughter of animals, whether male or female, which have not attained the age of 3 years or are useful for the purpose of draught or any kind of agricultural operations and if male are useful for the purpose of breeding and if female are useful for the purpose of giving milk and bearing offspring. The Act has been applied to 22 Municipalities in the State.

11. *Madhya Bharat.*—An Act entitled "KRISHI UPYOGI PASHU RAKSHAN VIDHAN" Samvat 2006 enforced from 27th July, 1949, prohibits the slaughter of all cattle in the State.

12. *Mysore.*—The Mysore Prevention of Cow Slaughter Act, 1948, enforced on 24th July, 1948, prohibits the slaughter of cows, bulls, bullocks, buffaloes and calves in the State.

13. *Pepsu.*—The slaughter of ox, bull, cow and the young of cow in Pepsu State is prohibited under Patiala Penal Code since the erstwhile Patiala State.

14. *Rajasthan.*—The slaughter of cow, ox and calf is prohibited in Rajasthan under the Rajasthan prohibition of Certain Animals Act, 1950.

15. *Saurashtra.*—The Bombay Animals Preservation Act, 1948, has been adopted in Saurashtra and enforced from 14th November, 1952.

16. *Travancore-Cochin.*—The slaughter of cattle in Travancore-Cochin is regulated by the notifications issued by the Travancore and Cochin Governments before the integration of these States. These notifications prohibit the slaughter of bulls, bullocks or buffaloes, below the age of 10 years in a good state of health and suitable for work, cows or buffaloes in milk, pregnant cows or buffaloes and dry cows or buffaloes and heifers suitable for breeding purposes.

17. *Ajmer.*—The State Legislature has recently passed an Act entitled Ajmer Prohibition Act, 1954. This still awaits the assent of the President. The Act provides for a complete ban on the slaughter of bull, bullocks, cow or the calf of a cow. This also provides for a ban on the slaughter of female buffalo and its female progeny, unless it is certified by the competent authority that the animal is fit for slaughter. Such a certificate is to be issued only when the competent authority is of the opinion that the animal has become permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease.

18. *Bhopal.*—The State Legislature has recently passed an Act providing for complete ban on cow slaughter.

19. *Coorg.*—Slaughter of cattle is not in vogue in Coorg and therefore, the State Government feels that there is no necessity for any legislation.

20. *Delhi.*—The slaughter of cows and its progeny and milch buffaloes is prohibited in Delhi under Municipal orders.

21. *Himachal Pradesh.*—The slaughter of cattle is not practised in Himachal Pradesh. In certain areas male buffaloes are sometimes slaughtered for ritual purposes. No legislation is considered necessary in the State.

22. *Kutch.*—There is no slaughter house in Kutch State.

23. *Manipur.*—According to the orders of Maharaja issued before intergration, the slaughter of cows is prohibited in the State.

24. *Tripura.*—By customs and police regulations, cow slaughter was forbidden before integration.

25. *Vindhya Pradesh.*—No cattle are slaughtered in this State.

The Press Note issued in connection with the banning export of beef is reproduced below:—

"The Government of India have reviewed the export policy of beef (tinned, canned or otherwise) and have decided to prohibit its export except as ship stores."

The meat of buffalo has, however, been excluded from the term beef, whereas cow casings, tongues have been included for the purpose of prohibition of export of beef.

APPENDIX V

TABLE SHOWING THE NUMBER OF RECOGNISED AND UNRECOGNISED SLAUGHTER HOUSES IN INDIA (1948-49)

State	Recognised	Un-recognised	Total
Ajmer	7	..	7
Assam	10	276	286
Bihar	..	..	65
Bombay	6	67	73
Coorg	6	7	13
Delhi	3	..	3
Himachal Pradesh	4	..	4
Hyderabad	..	..	125
Kashmir	..	29	29
Madras	114	364	478
Madhya Bharat	..	4	4
Madhya Pradesh	..	..	289
Mysore	39	43	82
Orissa	5	15	20
Pepsu	10	50	60
Punjab (I)	4	119	123
Rajasthan	5	13	18
Saurashtra	..	..	14
Travancore-Cochin	36	28	64
Uttar Pradesh	28	296	324
Vindhya Pradesh	..	..	5
West Bengal	12	55	67
Others	..	..	12
Total	289	1,366	2,165

Source.—Report on the Marketing of Meat in India, 1954 (Under print).

APPENDIX VI

NUMBER OF CATTLE SLAUGHTERED INSIDE AND OUTSIDE SLAUGHTER HOUSES IN INDIA (1953)

State	Cattle			Buffalo		
	Inside slaughter house	Outside slaughter house	Total	Inside slaughter house	Outside slaughter house	Total
Assam	..	29,281	29,281	..	3,000	3,000
Bihar	45,649	1,89,716	2,35,365	13,348	37,032	50,380
Bombay	1,15,702	49,298	1,65,000	47,055	7,635	54,690
Delhi	..	..	..	..	..	..
Himachal Pradesh	..	..	..	..	..	..
Hyderabad	66,140	21,712	87,852	7,340	4,545	11,885
Kashmir						..
Madhya Bharat						..
Madhya Pradesh						7,350
Madras						23,000
Mysore	..	..	..	..	..	..
Orissa	..	32,777	32,777	..	1,126	1,126
Pepsu	..	..	..	..	..	..
Punjab (I)	..	..	..	..	..	..
Rajasthan	5,475	..	5,475	365	..	365
Saurashtra	..	..	..	..	..	..
Travancore-Cochin	3,552	8,952	12,504	1,221	1,876	3,088
Uttar Pradesh	56,585	..	56,585	2,02,106	75,846	2,78,042
Vindhya Pradesh	..	..	..	..	..	..
West Bengal	1,11,131	68,954	1,80,085	22,527	935	23,462
Others (*a*)	..	13,180	13,180	3,381	4,250	7,631
Total	5,36,768	7,32,361	12,69,129	3,27,246	2,36,773	5,64,019

(*a*) Includes Ajmer, Bhopal, Bilaspur, Coorg, Kutch, Manipur, Sikkim and Tripura States.

Source.—Report on the Marketing of Meat in India; 1954 (Under Print)

GIPN—S1—270 M. of F. & A.—2-8-55.—1000